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OF THE TENNESSEE MEDICAL ASSOCIATION

VOLUME 63, NUMBER 1

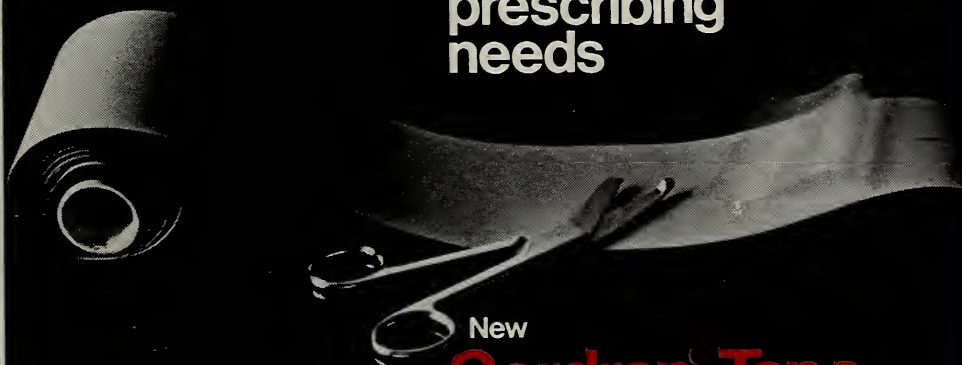
JANUARY 1970

TENNESSEE MEDICAL ASSOCIATION

135th Annual Meeting—Memphis, Tenn.

Sheraton-Peabody Hotel—April 9-10-11, 1970

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ASSOCIATION NEWS

Stimulating Assortment of Annual Meeting Activities Await TMA Doctors In Memphis, April 9-11

Physicians and guests, as well as members of the Woman's Auxiliary to TMA, who journey to Memphis, April 9-11, will find numerous Tennessee Medical Association annual meeting activities for social and professional enrichment.

The 3-day medical meeting will feature a number of outstanding guest speakers, two general scientific sessions, 15 medical specialty societies conducting their annual meetings concurrently with TMA, as well as the annual session of the Woman's Auxiliary. Numerous other business meetings, social events, breakfast sessions, will take place. More than 40 technical exhibits will be displayed as well as scientific exhibits sponsored by physician members.

In addition to scientific and business activities, entertainment features will include the President's Banquet and social hour and dance on Friday evening, April 10. Other social hours, banquets and events will be sponsored by the specialty societies meeting with the state medical association. The Woman's Auxiliary will conduct its annual meeting at the Rivermont in Memphis at the same time that the TMA annual meeting will be presented in downtown Memphis with headquarters at the Sheraton-Peabody Hotel. Other meetings will take place in the Downtowner immediately across the street from the Sheraton-Peabody.

The principal business meetings will culminate in the sessions of the House of Delegates, the Association's top policy making body. The House will conduct its initial session on Wednesday evening, April 8 at the Sheraton-Peabody Hotel. The second session of the House will convene on Saturday morning, April 11 to act upon and finalize the business before the House.

GUEST SPEAKERS: The annual meeting programs will include a symposium on "Modern Treatment of Uremia" with the

principal topics to be presented on the subjects of "Medical Management of the Severely Azotemic Patient Prior to Dialysis." A second symposium will be on the subject of "End Stage Uremia—Dialysis and Transplantation." These will be presented by outstanding authorities in their field. A panel on the subject of "Chemiotherapy of Leukemia and Other Malignancies" will be presented in cooperation with St. Jude's Hospital in Memphis and the final symposium will be on the subject of "Professional Liability" presented by a group of outstanding attorneys.

In addition, outstanding guest speakers at the general sessions will be Governor Buford Ellington, speaking on a subject involving the public health program of the State of Tennessee. Plans are being finalized to have Dr. Roger Egeberg, Assistant Commissioner of Health, Education, and Welfare to address the membership.

OTHER EVENTS: Again, TMA will sponsor the public relations breakfast wherein key community leaders will be invited to attend on Friday morning, April 10 to hear what medicine in the state is doing and how they are going about caring for the citizens of Tennessee. This is an informative, educational type of program for community leaders in an effort to further inform the public. In addition, it is planned for IMPACT (Independent Medicine's Political Action Committee) to sponsor a breakfast on Saturday morning, April 11.

Francis H. Cole, M.D., TMA President, points out that the annual meeting is one of the services TMA members receive.

He stated that this year's meeting is being tuned to the times and there will be prominent authoritative speakers on many current medical and economic subjects.

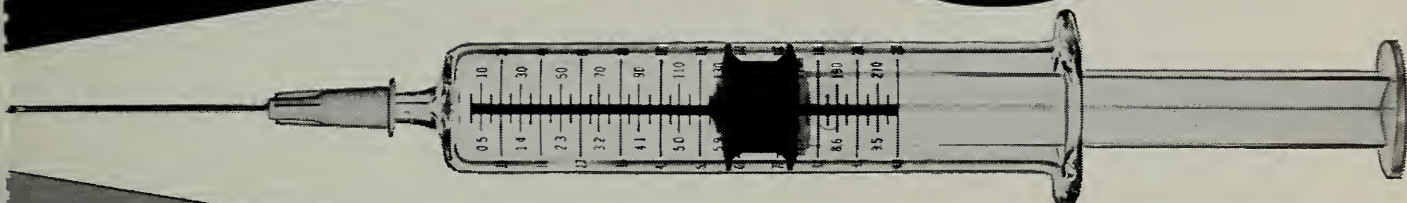
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Instructions to Contributors

Manuscripts submitted for consideration for publication in the JOURNAL OF THE TENNESSEE MEDICAL ASSOCIATION should be addressed to the Editor, Dr. R. H. Kampmeier, Vanderbilt University Hospital, Nashville, Tennessee 37203.

Manuscripts must be typewritten on one side of letter-weight paper. Either double or triple spacing and wide margins must be provided to facilitate editing which will be legible for the printer.

Bibliographic references should not exceed twenty in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to the style used in the American Medical Association publications, as,—Alais, F. G.: What Is Known About it, J. Tennessee M. A., 35:132, 1950.

Illustrations must be mounted on white cardboard and be numbered. The editor will determine the number, if any, of illustrations to be used. Additional illustrations will be charged to the author. The author's name should appear on the back of each illustration.

If reprints are desired, the requested number should be indicated in the latter accompanying the manuscript. The author will be billed by the publisher.

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NO. 1

Again a "Disease of Medical Progress." Only two of these five patients had proven tuberculosis. One died; the other iatrogenic death occurred in the absence of active tuberculosis. The toxic manifestations demonstrated in these five patients have long been known. This number of recognized untoward reactions points to a probable greater frequency than is suspected. Again as has been said over and over on the editorial pages, indications should be clearcut before exhibiting a drug having toxic potentials.

Jaundice and Death from Isoniazid

LAURENCE A. GROSSMAN, M.D., HERMAN J. KAPLAN, M.D., and
THOMAS E. BRITTINGHAM, M.D.,* Nashville, Tenn.

Introduction

Isoniazid is the most effective antituberculous drug yet introduced. When administered in conventional doses, it is considered to be "virtually free from untoward reaction."¹ Because of its therapeutic effectiveness and low toxicity, isoniazid is recommended for the preventive treatment of tuberculosis, and is being administered to increasingly large numbers of individuals. Recently we have encountered several incidents of liver damage occurring in association with isoniazid therapy. Two of the 5 patients died as a result of the liver disease.

Case Reports

CASE 1: A 56 year old white male post office employee was admitted to Vanderbilt University Hospital on May 13, 1968. In 1940, he had been found to have pulmonary tuberculosis and was managed by therapeutic pneumothorax. He had been followed since that date by his local physician. He used alcohol only occasionally, and then in small amounts. On April 9, 5 weeks before admission to the hospital, he consulted his physician for a routine examination. He felt "really good" at that time and was without complaint. The chest x-ray was unchanged from those of previous years.

Because of the remote history of tuberculosis, for which he had never received chemotherapy, he was started on 300 mg. of isoniazid daily on April 9. Ten days later he began to feel listless, feverish and anorectic. It was necessary to stop working, and he had daily fever, chills, and profuse sweating. On May 2 he was admitted to an outlying hospital where he had a daily temperature of 104°. He continued to have chills,

fever, vomiting, and his weight fell from 145 to 122 pounds. Initially he was not visibly jaundiced, the bilirubin being 1.5 mg./100 ml. Four days later it had risen to 10.5 mg. with 8.1 mg./100 ml. of the conjugated type. He became lethargic and delirious. Viral hepatitis was considered the likely diagnosis, although there had been no known exposure to this disease. Repeated serum transaminase determinations were 123 K.U., or less. Unbeknown to his physicians, the patient had continued to take 300 mg. of isoniazid daily. He later commented that he took the medicine faithfully, and seemed to be getting worse, and "the more I took, the worse shape I got in." Subsequently he received streptomycin, penicillin, and chloramphenicol, without apparent benefit. He was transferred to Vanderbilt University Hospital on May 13 because of deterioration in his general condition.

Examination revealed a thin, icteric man who appeared acutely ill. The B.P. was 80/50, P. 108, R. 26, and the T. 101.6°. There was cutaneous and scleral icterus. He had no spider telangiectasia nor significant lymphadenopathy. There was dorsal kyphoscoliosis with slight collapse of the left side of the chest. The liver was tender and palpable 5 cm. below the costal margin. The remainder of this examination was not remarkable.

The W.B.C. count was 15,400 with 71% segmented P.M.N., 8% band neutrophils, and no atypical lymphocytes. The SGOT. was 67 K.U. (Karmen unit), the SGPT. 36 K.U., and serum alkaline phosphatase 25 K.A.U. (King-Armstrong unit), the cephalin flocculation test was 3+, the thymol turbidity 11 units. The serum cholesterol was 340 mg. and total serum bilirubin 7.5 mg./100 ml. The LDH. varied from 260 to 290 units. The chest film showed a decrease in lung volume on the left with fibrothorax. X-ray of the upper and lower gastrointestinal tract was normal. There was no visualization of the gall bladder, despite a double dose of the oral drug.

No specific therapy was employed. All medications were stopped. There was immediate improvement; he did not vomit, and his appetite

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and strength rapidly returned. On the day following admission he was afebrile, and remained without fever during the rest of his hospitalization. By the 5th day after admission the serum bilirubin had fallen to 2 mg. He was discharged after one week of hospitalization, and has remained well to date.

COMMENT. This patient was well until beginning the use of isoniazid. He was taking no other drugs at the onset of his illness. His first clinical illness in many years occurred within 2 weeks after beginning the drug. The patient himself attributed his illness to isoniazid. Promptly, with the discontinuance of isoniazid, the jaundice and fever cleared. His age, the absence of recognized exposure to viral hepatitis, and the persistently low serum transaminase values made hepatitis an improbable diagnosis.

CASE 2: A 67 year old Negro woman, entered Vanderbilt University Hospital on Nov. 18, 1967. Since a bout of influenza 3 months earlier, she had noted shortness of breath and a cough, intermittently productive of thick, yellow sputum. She worked as a cleaning woman in a local office building until the day of admission.

Examination revealed a T. of 99°, and B.P. of 160/100. The examination of the abdomen was negative. No abnormal physical findings were detected, and there was no evidence of liver disease.

The serum bilirubin was 0.5 mg./100 ml., the SGOT. 21 K.U., and the alkaline phosphatase 11 K.A.U. The chest film showed scattered nodular densities in both upper lung fields, bilateral hilar adenopathy, and a small right pleural effusion. There was some cardiomegaly which was predominantly left ventricular in type. The intermediate P.P.D. and old tuberculin (1:1000, 1:100) skin tests were negative. Bronchoscopy revealed generalized inflammation and edema of the bronchial tree. Bronchial biopsy showed granulomatous inflammation with many Langhans giant cells, but no acid-fast organisms were seen. The pleural fluid had a protein of 5.4 gm. per 100 ml. Pleural biopsy sections showed only minimal chronic inflammation. Cultures of sputum, gastric washings, bronchial washings and pleural fluid were obtained for fungi and tubercle bacilli. The T. never rose above 100.2° during the hospitalization. She was discharged after 11 days, feeling well and anxious to return to her job.

Because tuberculosis had not been excluded, isoniazid was started in daily dosage of 300 mg. on Nov. 29. Except for digitalis, she received no other medications. When seen on Dec. 20, she was feeling well.

Shortly thereafter she developed progressive weakness, anorexia, nausea and vomiting. On

Jan. 23, 1968, she was markedly icteric and hospitalization was advised, but refused. She had never used alcohol and had no known exposure to hepatotoxins other than isoniazid. However, isoniazid was not discontinued. On Feb. 5, she was readmitted to Vanderbilt University Hospital, deeply icteric and in shock, with a systolic B.P. of 50 mm. of Hg. The liver was palpable at the costal margin. The serum bilirubin was 32.3 mg. with 19.4 mg. per 100 ml. of the conjugated variety, the alkaline phosphatase was 26 K.A.U. The SGOT. was 700 units and the LDH. 620 units. Her condition rapidly deteriorated and she died 8 hours after admission.

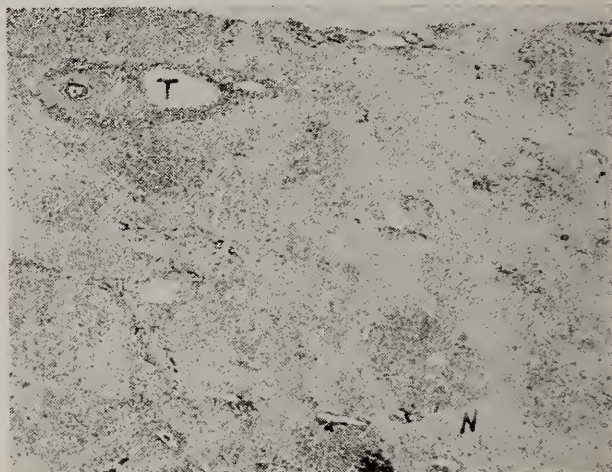
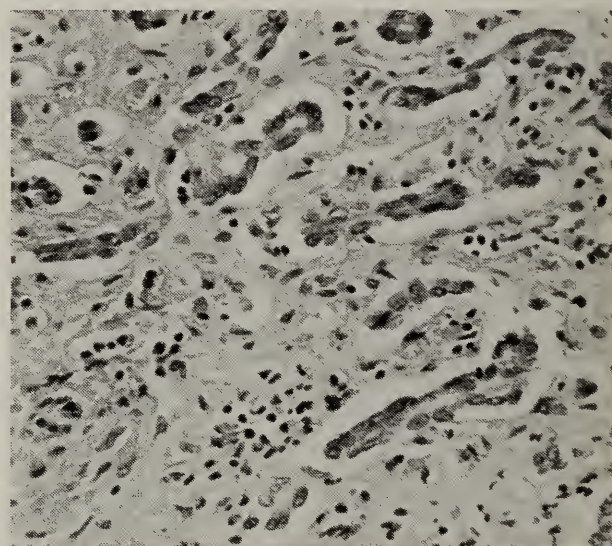


Fig. 1 (A.) Most of the liver cells have been removed, leaving triadal areas (T) amidst chronic inflammatory tissue (Bottom, Fig 1). Numerous groups of surviving cells (N) are scattered throughout, usually around central veins. (H & E x 34)



(B.) Areas between surviving nodules of liver showed numerous bile passages, condensation of stroma, and collections of lymphocytes, monocytes, and polymorphonuclear leucocytes. (H. & E x 750)

Postmortem examination revealed the liver to weight 800 gm. On microscopic study there was massive hepatic necrosis (Fig. 1). There were disseminated granulomas involving the lungs, pericardium, liver, spleen and lymph nodes, but the liver contained only a few granulomas. The massive necrosis of the liver was indistinguishable from acute yellow atrophy seen in viral hepatitis.

COMMENT. This patient died of massive liver necrosis only 2 months after beginning isoniazid. There was no evidence of liver disease before the drug was started. She received no other antituberculous chemotherapy. The autopsy findings of massive hepatic necrosis are equally consistent with either drug or viral hepatitis. The latter diagnosis, although not absolutely excluded, is unlikely in a 67 year old woman whose only known exposure occurred during an 11-day stay in the hospital. The temporal relationship between the use of isoniazid and the appearance of jaundice strongly suggests isoniazid toxicity.

CASE 3: A 35 year old Negro woman was examined on May 19, 1968. She had been found to have pulmonary tuberculosis on a routine pre-employment chest x-ray in March, 1968. Sputum culture was positive for *Mycobacterium tuberculosis*. Two months before the examination antituberculosis chemotherapy was instituted with isoniazid (300 mg. daily) and Para-aminosalicylic acid (PAS) (12 gm. daily). Six weeks later she complained of nausea and vomiting.

On May 7 she was admitted to a local hospital with chills and fever. Physical examination there showed a T. of 103°. There was a widespread generalized rash. The liver was not palpable, and the abdominal examination was not remarkable. The Hgb. was 14 gm. The W.B.C. count was 7,500 with 80% segmented P.M.N. A chest x-ray showed fibroexudative disease in both upper lungs. No liver function tests were performed. On the day of admission the patient had voided incontinently at home, and the family had noticed that the urine caused a brown stain on the sheets. She had mentioned to her family that she thought the pills she was taking for tuberculosis were making her ill.

At the hospital admission on May 7, isoniazid and PAS were not ordered. After 4 days she seemed to be doing quite well, the maximum temperature that day being 99.2°. She was thought to have had a viral infection and seemed to be recovering. On May 12 isoniazid and PAS were again ordered. Later that day she had a T. of 103.8°; the following day this rose to 104.8°. She complained of severe headache, began to vomit, developed frank chills, and urticaria was noticed. Mental confusion was evident. On May 17, jaundice was observed and the serum bi-

lirubin was 20 mg./100 ml. The cephalin flocculation test was then 3+, and the BUN. 12 mg. The cerebral spinal fluid was normal. L.E. preparations were negative. The serum transaminase and alkaline phosphatase were not determined. On May 18 she was unresponsive. The icterus deepened rapidly. She became hypotensive, the pupils were fixed, and she lapsed into hepatic coma. She died on May 20, 1968.

Autopsy revealed cavitary tuberculosis of the upper lobes of both lungs. There was no tuberculosis elsewhere. Microscopic sections showed numerous acid-fast organisms in the upper lung areas. The liver weighed 700 gm. Microscopic sections revealed massive areas of atrophy with the parenchymal cells being small to absent (Fig. 2). A heavy lymphocytic infil-

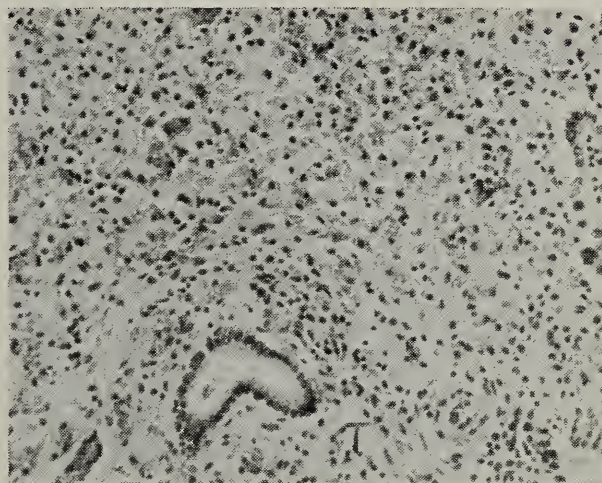


Fig. 2 A triadal area (T) and adjacent tissue is infiltrated with lymphocytes and mononuclear cells. No hepatocytes could be identified in numerous sections of the liver. The stroma seemed loose, and was heavily infiltrated with mononuclear phagocytes. Some proliferation of bile passages (B) was noted. (H & E x 500)

trate was present. The *anatomic diagnosis* was massive hepatic atrophy, consistent with the picture of acute yellow atrophy and viral hepatitis.

COMMENT. The absence of any known exposure to hepatitis virus, the presence of chills with temperature elevations almost to 105°, the generalized skin rash with urticarial features, the patient's voiced suspicion that her antituberculosis drugs were responsible for her illness, the improvement manifested within 4 days after discontinuing isoniazid and PAS, and the marked exacerbation of her illness when antituberculosis chemotherapy was resumed, all suggest that this patient's illness was due to drug hepatitis rather than a viral hepatitis. Both isoniazid and PAS

were employed. It cannot be stated with certainty that the hepatitis was caused by isoniazid or by PAS. In view of the previous case reports, it is likely that isoniazid was the dominant factor in her fatal hepatic necrosis.

CASE 4: A 63 year old white female department store buyer, was admitted to Vanderbilt University Hospital because of jaundice on June 16, 1969. The past history disclosed bronchiectasis of the left lower lobe in 1953, mild hypertension, and sensitivity reactions to a sulfonamide preparation and to chlorothiazide. There was no history of liver disease, intake of alcohol, transfusions, or recent injections.

In January, 1969, she noted malaise and suspected low-grade fever. In April her T. was recorded as high as 103°, and she had had fever intermittently since that date. On May 13, she was hospitalized at another Nashville hospital for evaluation of the fever. Many laboratory tests, including axillary lymph node biopsy and culture, were unrevealing as to the cause of her fever. The T. reached a maximum of 101° orally during this period of hospitalization. Neither the liver nor the spleen was palpable. The serum transaminase was 23 K.U. and the LDH. 100 units. The alkaline phosphatase was normal, and the serum bilirubin was 0.3 mg./100 ml. The tuberculin skin test was negative. After two weeks of hospitalization she was discharged with the diagnosis of fever of unknown origin.

On May 23, prednisone (15 mg. daily) and isoniazide (300 mg. daily) were started. No other drugs were prescribed. On June 12, she noticed dark urine, a light color to the stools, anorexia, nausea, and abdominal discomfort. The following day a "measles rash" appeared over the head and neck and there was swelling in the peri-orbital areas. All medications were discontinued. Because of the jaundice she was admitted to Vanderbilt University Hospital on June 16.

Examination revealed a tender, smooth liver, enlarged 4 finger-breadths below the costal margin. The W.B.C. count was 11,100 with a normal differential count. The serum bilirubin was 11.9 mg. with 7.1 mg. per 100 ml. of the conjugated type. The serum transaminase was 2,000 K.U., the SGPT. 2,160 K.U., and the alkaline phosphatase 33 K.A.U. A liver scan was normal.

The drugs were discontinued. The liver function tests rapidly returned to normal. Ten days after admission the SGOT. was 31 K.U. and the alkaline phosphatase 16 K.A.U. A week later, the SGPT. was 26 K.U. Four weeks after admission the serum bilirubin was 1.2 mg. with 0.4 mg./100 ml. conjugated type. Cholecystogram on July 7, revealed a normally functioning gall bladder without stones. Liver biopsy on July 11 showed minimal nonspecific abnormalities compatible with a resolving viral hepatitis. At the time of discharge she continued to have fever, often with a daily rise to 102°.

COMMENT. This woman was known to have normal liver function tests before starting isoniazid. She had a history of sensitivity reactions to other drugs. Three weeks after treatment with isoniazid, she developed a skin rash, facial edema, and jaundice with very high levels of serum transaminase. Within a month after the discontinuance of isoniazid, the jaundice had cleared and the transaminase had returned to normal.

The preceding 4 patients recalled to one of us (T.E.B.) a patient seen many years earlier.

CASE 5: A 36 year old Negro woman developed left cervical lymphadenopathy in September, 1956. A lymph node biopsy disclosed tuberculous lymphadenitis. On Nov. 10 isoniazid (300 mg. daily), and PAS (12 mg. daily) were started. On Dec. 6, she developed chills and fever. One week later an erythematous, pruritic skin rash was noticed. She was admitted to Barnes Hospital in St. Louis, Missouri, on Dec. 18, 1956.

Examination revealed a confused woman complaining of nausea and blurring of vision. The T. was 104.8° rectally. Bilateral cervical, axillary and inguinal nodes, some more than 2.0 cm. in diameter, were present. Her lungs were clear. The liver was palpable 4 cm. below the right costal margin. The spleen was felt 3 cm. below the costal margin. There was demonstrable ascites. When examined in the clinic, before beginning antituberculous chemotherapy, the abdominal examination had been negative, and there was no history of liver disease or alcoholic intake.

Laboratory studies showed a remarkable W.B.C. count of 45,200 with 22% segmented P.M.N., 58% lymphocytes (of which more than one-half were young and plasmacytoid), 6% band neutrophils, 2% monocytes, 11% P.M.E. and 1% P.M.B. The serum bilirubin was 6.4 mg. with 3.1 mg./100 ml. conjugated type. The alkaline phosphatase was 8.5 B.U. (Bodansky unit), the cephalin flocculation 3+, the thymol turbidity 16.4 MacLagan units, the serum transaminase 300 K.U., the serum cholesterol 78 mg., the total serum protein was 6.9 gm., with 2.4 gm. of albumin and 4.5 gm./100 ml. of globulin. The Hgb. was 11.7 gm. Bone marrow aspirate revealed cellular marrow, and contained 11% eosinophiles and 13% plasma cells. The fasting blood sugar was 22 mg. on the day of admission, and 36 mg. 2 days later.

Both isoniazid and PAS were immediately discontinued. She was given prednisone, Benadryl, glucose solution intravenously, and streptomycin. The T. returned to normal, and remained so. The bilirubin rose to 10.5 mg./100 ml. shortly after admission, and then rapidly diminished so that by Dec. 31, 13 days after admission, it was

less than 1 mg. Other liver function tests, the fasting blood sugar, the leukocytosis with atypical lymphocytosis, improved concomitantly. The rash disappeared, as did the lymphadenopathy. The hepatosplenomegaly regressed, and neither liver nor spleen could be felt. Streptomycin was discontinued because of tinnitus.

Further antituberculous therapy seemed necessary. On Jan. 15, 1957 she was given 50 mg. of isoniazid. Within 2 hours she awakened with a hard chill and a T. of 103.1°. Two days later the peripheral blood showed 43% eosinophiles. The eosinophilia decreased to 6% within a week, and the patient again felt well and was afebrile.

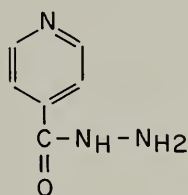
Because of skepticism as to the existence of severe sensitivity to isoniazid, it was decided to again administer this drug, with the author in constant attendance, checking vital signs at 15 minute intervals. On Jan. 25, the patient was given 50 mg. of isoniazid. Prior to the administration of the drug she felt quite well. After 2½ hours she had chilly sensations, then a severe, shaking chill, followed by a T. of 102.2° orally. Four hours after the isoniazid administration she appeared agitated, tremulous, very thirsty, had auditory hallucinations, was hyperventilating, and appeared psychotic. Samples of her spontaneous speech included, "I'm tired, I'm tired," "I don't want to be bad," "Noise, noise, noise, everytime I get quiet," "I just want to get out of here and be left alone," "I heard them making their plot last night," "Thank you, Jesus, thank you, Jesus." She became acutely ill with a T. of 103.8°, a tachycardia of 158, and R. of 50/minute. However, 12 hours after the administration of the drug she rapidly improved, became afebrile, and her mentation was normal.

COMMENT. This woman developed a life-threatening illness with hepatitis while taking isoniazid and PAS. Severe hypersensitivity to isoniazid was subsequently proven with a development of a temperature of 103.8° orally, and a transient psychosis after the administration of a single 50 mg. dose of the drug. She was never subsequently challenged with PAS. It is likely that her hepatitis and psychosis were caused by isoniazid.

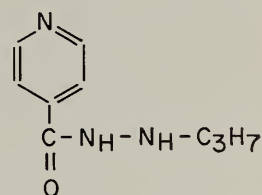
Discussion

Jaundice due to isoniazid is uncommon. By 1966, only 14 cases of jaundice had been reported in patients receiving average therapeutic doses of isoniazid.² One additional patient has since been reported.³ The 5 patients herein described suffered severe liver disease, most likely related to their isoniazid therapy. Four of these were seen in a period of less than 18 months. It is likely that isoniazid hepatitis exists, and

is much more common than had previously been suspected. At times it is erroneously attributed to viral hepatitis or to PAS toxicity.



ISONIAZID



IPRONIAZID

FIGURE 3.

Iproniazid, the iso-propyl derivative of isoniazid is well established as a cause of hepatitis. (Fig. 3) It is therefore not surprising that isoniazid should occasionally cause liver disease. Rosenblum and associates,⁴ in a review of 90 cases of severe iproniazid hepatitis (most patients had serum bilirubin values greater than 18 mg./100 ml.), found the disease was "indistinguishable biochemically and pathologically from viral hepatitis." The liver biopsy in Case 4 was reported as compatible with viral hepatitis. Post-mortem examination of the liver in Cases 2 and 3 were reported to be consistent with acute yellow atrophy resulting from viral hepatitis. Transaminase values of more than 2,000 units were recorded in some of the patients having iproniazid hepatitis reported by Rosenblum, though others had transaminase values of only 100 to 300 units in the presence of deep jaundice. Transaminase values of only 100 to 300 units are most unusual in severe viral hepatitis. Our patients receiving isoniazid showed a striking variation in the peak serum transaminase values, the latter ranging from 123 to 2,160 Karmen units. Interestingly, the patient with the highest transaminase value was the least ill of the 5 patients. Rosenblum and collaborators⁴ considered iproniazid jaundice to be of the hepatocellular type, rather than choleostatic. These 5 patients suggest that isoniazid jaundice is also of the hepatocellular type. The use of isoniazid carries risks in addition to the production of liver

disease. We have seen a number of patients, such as typified by Case 5 with high fever occurring in association with isoniazid therapy, and in whom the reproduction of fever occurs with subsequent oral administration of a single 50 mg. dose of isoniazid. Olsen and Torning⁵ documented a high incidence of psychologic changes and impairment of memory in patients taking this drug. Many of our patients have also had difficulty with mentation while taking isoniazid. The widespread use of isoniazid may also be promoting an increasing incidence of isoniazid-resistant tuberculosis. Thus, the noxious side effects of this drug are undoubtedly much greater than has previously been thought to exist.

It is common practice to advise treatment for one year with isoniazid in asymptomatic persons found to be tuberculin reactors during mass surveys. Such a therapeutic program is recommended—for example, by the Tennessee State Health Department. Similarly, in this large group of positive tuberculin reactors isoniazid therapy was advocated by The National Communicable Disease Center "Because persons who are

positive tuberculin reactors comprise the reservoir of future tuberculosis in this country, special priority on preventing this progression from latent to active disease should be an essential element in modern tuberculosis programs."

We believe indications for the use of isoniazid should be restricted because of the multiplicity of side effects.

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* * *

From the FDA

For the past several years the FDA has been concerned about the changing role of systemic sulfonamides in the treatment of infections. The increasing frequency of bacterial resistance and the development of newer and more effective drugs have sharply limited the therapeutic usefulness of systemic sulfonamides in many disease conditions for which they have been widely used in the past.

The National Academy of Sciences-National Research Council has evaluated most of the currently marketed short-acting systemic sulfonamides (sulfachlorpyridazine, sulfadiazine, sulfaethidole, sulfamerazine, sulfamethizole, sulfamethoxazole, sulfisomidine, sulfisoxazole, and combinations of sulfadiazine and sulfamerazine with and without sulfamethazine). The FDA has considered the Academy's comments and other available data and has concluded that these short-acting systemic sulfonamides are indicated only in the following conditions:

1. Chancroid
2. Trachoma
3. Inclusion Conjunctivitis

4. Nocardiosis
5. Uncomplicated urinary tract infections due to susceptible organisms such as *E. coli*, *Klebsiella-Aerobacter*, *Staphylococcus aureus*, *Proteus mirabilis* and, less frequently, *Proteus vulgaris*.
6. Toxoplasmosis, as adjunctive therapy with pyrimethamine.
7. Malaria due to chloroquine-resistant strains of *Plasmodium falciparum* when used as adjunctive therapy.
8. Meningococcal meningitis where the organisms have been demonstrated to be susceptible.
9. *Hemophilus influenzae* meningitis as adjunctive therapy with parenteral streptomycin.
10. Prophylaxis of rheumatic fever, as an alternative to penicillin: only sulfadiazine has been demonstrated to have substantial evidence of effectiveness.

Sept. 12, 1969

The authors attempted an evaluation of epidemic infectious hepatitis as related to the incidence of mongolism. Others have believed there might be a relationship of this viral disease to the birth of mongol infants. Though it is impossible to relate such births to epidemic hepatitis, itself, it seems possible that this infection might have an effect upon the ovum.

Epidemics of Infectious Hepatitis: Their Relationship to the Incidence of Down's Syndrome in Memphis*

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Introduction

Exogenous factors as a cause of Down's syndrome (mongolism) received renewed interest in 1965 when Stoller and Collman¹ reported an association of the Down's syndrome in births with epidemics of infectious hepatitis in Australia. An interest in congenital malformations led Stoller and Collman to study the temporal patterns of distribution of such cases. Noticing a marked clustering of cases of Down's syndrome in certain years they studied further the temporal patterns of various reportable communicable diseases. Only in the case of infectious hepatitis did they discover a remarkable similar pattern where peaks of infectious hepatitis activity were followed nine months later by peaks in the births of Down's syndrome. More recent epidemiologic investigations, however, have not substantiated the associations of Stoller and Collman's report.²⁻⁵

Investigations of Lejeune and associates⁶ reported in 1954 have shown that persons with Down's syndrome possess an extra chromosome. G21-trisomy and partial trisomy due to translocation abnormalities in the ova suggest that Down's syndrome may have multiple causes. Chromosomal aberrations could occur either during meiosis or during mitosis, that is either before or after the fertilization of the ovum.⁷ Also, recently it has been shown that leukocytes cultured from patients with infectious hepatitis develop chromosomal aberrations.⁸ This information, however, does not reveal

what factor or factors are responsible for the etiology of this syndrome.

Considerable data from Memphis and Shelby County, Tennessee, already had been collected in regard to the epidemiology of infectious hepatitis. This along with the historical background of Down's syndrome prompted the preparation of a registry of births with this syndrome. This was done to add more epidemiologic evidence from another geographic area in an attempt to determine a possible etiologic relationship between infectious hepatitis and Down's syndrome.

Materials and Methods

All individual case reports of infectious hepatitis, exclusive of serum hepatitis, in Memphis-Shelby County from January 1, 1955 to the present were entered on data processing cards. These represent physicians' reports by the date of onset of illness. Case reports prior to 1955 were not obtainable although monthly incidence figures from 1952-55 were available. A registry of Down's syndrome births was compiled from various sources. The records of five Memphis hospitals where the vast majority of births occurred were first surveyed. Births of infants diagnosed with Down's syndrome were tabulated in resident women since January 1, 1955. Births prior to this time were not considered since the data in regard to race, sex and age of patients having infectious hepatitis were not available for correlations. Since the diagnosis of Down's syndrome is occasionally not made at birth and since perhaps a very few births do not occur within the hospitals, further information was sought. Cases of Down's syndrome were obtained from the city schools who had corrective classes for such children,

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from a survey of death certificates, and from letters sent to pediatricians, specialized schools, institutions for the mentally retarded, child guidance and development centers. Information was also obtained from public health nurses who might know of cases not referred to the institutions sur-

veyed. All nonresident cases were eliminated from the study.

Results and Discussion

The incidence of infectious hepatitis and the frequency of births with Down's syndrome are given in table 1. The number

Table 1
SEMI-ANNUAL INCIDENCE OF INFECTIOUS HEPATITIS AND
BIRTHS OF CHILDREN WITH DOWN'S SYNDROME IN
MEMPHIS-SHELBY COUNTY

Year (6 month periods)	Infectious Hepatitis		Births with Down's syndrome	
	Number of Cases	Rate per million	Number of Cases	Rate per thousand live births
1955	24	44	9	1.07
	27	49	11	1.31
1956	37	66	4	0.48
	22	39	6	0.72
1957	47	81	10	1.18
	25	43	9	1.06
1958	17	29	3	0.36
	20	34	6	0.73
1959	17	28	3	0.36
	55	90	6	0.71
1960	74	118	4	0.49
	73	116	2	0.24
1961	164	254	6	0.71
	175	271	16	1.89
1962	157	246	13	1.58
	92	138	8	0.97
1963	63	92	9	1.09
	43	63	18	2.18
1964	56	80	7	0.88
	58	83	9	1.13
1965	49	68	9	1.22
	55	76	10	1.36
1966	61	83	8	1.11
	68	92	6	0.83
Total	1,479		192	

of cases and rates are reported by six months periods for several reasons. If annual rates had been used, peaks of infectious hepatitis would have been bisected since this disease occurs chiefly in the winter months. If births of children with Down's syndrome are due in any way to hepatitis infection, the peaks of the births should follow the peaks of hepatitis nine months later since the prevailing evidence is that the ovum would have to be affected shortly before or after fertilization. However, nine months would be unsatisfactory because of the seasonal distribution of hepatitis. The use of three month periods would seem ideal to present these data, but because of the small number of births with Down's syndrome the curve becomes too erratic. The best compromise was the use of six month periods, a method which does not distort the data nor alter the conclusions to be made.

The rates of hepatitis in the table were calculated from population estimates based on decennial census figures for Memphis-Shelby County. The total population varied from 507,000 in 1952 to 738,000 in 1966.

The rates for children with Down's syndrome were calculated by dividing the number of births in any six month period by one-half the number of live births in that year. Stillbirths are not included since no stillbirth certificates with the diagnosis of Down's syndrome were found. The number of live births in Memphis-Shelby County varied from 16,845 in 1955 to 14,411 in 1966 with a peak of 16,940 in 1957.

Figure 1 shows the semi-annual incidence of infectious hepatitis with Down's syndrome births on scales made compatible so that the peaks could be compared. Data for the births were not collected prior to 1955. The figure discloses distinct peaks of infectious hepatitis in 1953 and 1961 which are similar to national figures. The curve of the births of the Down's syndrome children seems complex and difficult to interpret but none the less shows some interesting correlations. Perhaps it should be stated first that we have been hesitant to apply any complex statistical analysis to our data since we recognize certain inaccuracies both in the reporting of infectious hepatitis and the registry of Down's syndrome births.



FIG. 1. Semi-annual incidence of infectious hepatitis and Down's syndrome (mongoloid births) in Memphis-Shelby County.

Despite these deficiencies it would appear from the figure that births of children with Down's syndrome seem to occur in time clusters irrespective of their relationship to the epidemics of infectious hepatitis. Clustering of Down's syndrome births was first recognized by Pleydell⁹ in Northamptonshire (England) and was confirmed by the studies of Stoller and Collman^{1,10} in Victoria (Australia) and by Heinricks and associates.¹¹ (South Dakota). However, others have denied the existence of clustering in the case of Down's syndrome births. The statistical analyses and conclusions presented by Stark and associates,^{2,12} (Michigan), Leck³ (Birmingham, England), Kogan and associates,⁴ (Seattle-King County, Washington) and Baird and Miller,⁵ (British Columbia, Canada) all denied the existence of clustering.

The Memphis data indicate a minor clustering of Down's syndrome births in 1955 and 1957 and major peaks in the curve during the 1961 and 1963 six months periods. The other minor peaks in the curve are perhaps too minimal to be considered significant. Indeed it is even difficult properly to evaluate the 1955 to 1957 peaks in Down's syndrome births. However, the birth peak of 1961 is strikingly parallel to the 1961 hepatitis peak but would seem too soon. That is, if our original association is correct that the birth of the affected child would occur nine months after hepatitis infection of the mother, the peak of births should have appeared later in 1962. Instead there is a distinct trough in 1962 followed by a second distinctly higher peak in 1963 which seems far too late to be associated with the epidemic of infectious hepatitis. On the

other hand, the high persistence of the hepatitis rates after 1961 and a similar persistence of the Down's syndrome birth rates after this time would again strengthen the correlation. It would appear from the Memphis data that while there are certain interesting rough correlations between births of Down's syndrome and infectious hepatitis the answer to this problem probably will lie in prospective studies based on advancing knowledge of both conditions rather than on an extensive statistical analysis of the current data.

It is interesting to speculate, however, on the various possibilities appearing in the current Memphis data. The first possibility is that enumeration of the births of children with Down's syndrome was inaccurate and the low rates or troughs are due to underenumeration because of difficult, inadequate case finding procedures or inadequate diagnosis. If underenumeration has happened it should be most marked in the later years of the study since children whose diagnosis was missed at birth would be apt to be detected when they are older and reach school age. As indicated in the figure, the rates actually have been appreciably higher in the later years of the study and not lower as expected with underenumeration. Also the average rate for Down's syndrome, 0.98 per 1000 births in Memphis, compares favorably with Stark's¹² data of 0.89 births in Michigan.

Leck's³ data from Birmingham, England showed rates of 1.62 per 1000 births, but the higher incidence in England might possibly be a reflection of the differences in the age distribution of mothers. Since advanced maternal age is associated with an increased risk of bearing a child affected with Down's syndrome, a predominance of elderly women having children could account for differences between populations. Still further evidence that underenumeration did not occur is shown by a study of the subpopulations of white and Negro children with Down's syndrome in Memphis. The white rate was 0.95 per 1000 births based on 100 children with Down's syndrome and the Negro rate was 1.02 per 1000 births. This similarity of rates does not suggest underenumeration since the different races were for the most part

handled by different medical facilities during the period under study.¹³

A second possibility is that peaks of births with Down's syndrome are not related to infectious hepatitis but are related to another exogenous factor, or a nonenvironmental factor, such as the advanced age of mothers of children with Down's syndrome who for some reason give birth in time clusters. These problems were not investigated since they seem highly improbable. The birth curves of children with Down's syndrome have been compared with all other reportable infectious diseases in Memphis-Shelby County and no relationship was found with any of these diseases excepting infectious hepatitis.

Finally, it is possible that the hepatitis epidemic and Down's syndrome births curves are not related since different age groups are involved. We know that the hepatitis epidemics consisted chiefly of clinical cases among those under 30 years of age.¹⁴ Furthermore, there has been no evidence that Down's syndrome is in any way related to clinical infectious hepatitis. If Down's syndrome is due to infectious hepatitis, the mothers must have had a subclinical infection. We would assume that subclinical hepatitis is directly proportional, or nearly so, to clinical reported disease during epidemic periods. This being the case, mothers over 30 years of age would be subjected to more subclinical infectious hepatitis during epidemic periods. It may be that this along with other factors related to age, perhaps a greater tendency for chromosomal aberrations, is a combination of factors that may produce more births affected with Down's syndrome. There is evidence that chromosomes are affected by a factor present in the blood of hepatitis patients. Mella and Lang⁵ have shown that there is an *in vitro* inhibition of mitosis in leukocytes of hepatitis patients and that chromosomal abnormalities are present in the leukocytes of convalescent hepatitis patients.

It would appear from the Memphis data that some kind of relationship actually may exist between infectious hepatitis and births of children with Down's syndrome. Kogen and associates⁴ have suggested more extensive epidemiologic studies are needed

to solve this problem. Further epidemiologic study is indeed indicated and perhaps prospective studies based on advanced knowledge of both conditions may give the final solution to this problem.

Summary

Incidence rates of infectious hepatitis are compared to birth rates of children born with Down's syndrome from 1955 to 1966 in Memphis-Shelby County, Tennessee. There were 1,479 cases of reported hepatitis and 192 cases of Down's syndrome during this 12 year period. Both diseases occurred with distinct epidemic peaks and troughs, hepatitis being epidemic during 1961-1962 and an aggregation of Down's syndrome occurring in 1961 and again in 1963. The first aggregation of births seemed too soon and the second seemed too late to be correlated with the expected interval of 9 months following the peak of the hepatitis epidemic. However, the hypothesis that sub-clinical hepatitis may act upon the ovum before or after fertilization to cause Down's syndrome cannot be rejected since tendencies in aggregations of cases between the two diseases do appear to exist.

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The family reported here illustrates the hereditary aspects of this disease and its serious nature, important in genetic counseling.

Angiomatosis Retinae (von Hippel's Disease)*

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Reese¹ has defined angiomatosis retinae, or von Hippel's disease, as a congenital mesodermal malformation which possesses neoplastic traits and occurs in the neuroectodermal tissue of the retina.

Historically, this lesion was first recognized and described from its clinical appearance by von Hippel² in 1895. He followed this with a pathologic description and thus gave his name to this entity.

In 1926, Lindau³ correlated the frequency of the association of von Hippel's disease with hemogenous cyst of the cerebellum, kidney, liver, and pancreas. This combination has thus been recognized as von Hippel-Lindau disease.

Angiomatosis of the retina is a relatively rare disease. The majority of reported cases are discovered in the third decade of life, with the earliest case reported having been found in a premature infant, and the latest found in a man of 50 years of age.¹

There is a male predominance of 2:1 with 50% of the reported cases having bilateral involvement.² Twenty percent have a familial tendency.

The basic pathologic lesion is an abnormal capillary bed. The tumor mass represents the malformed capillary bed and may be regarded as an angioblastic or capillary hemangioma. An anastomosis between an artery and a vein is thought to represent the primary change leading to the formation of a retinal nodule.

However, Gamper⁴ reported a case in which he recognized the angioma in the

form of a red nodule which was followed over a 3-year period before the vessels showed a characteristic enlargement and tortuosity.

The vascular changes are followed by glial proliferation as a secondary reaction. Eventually, hemorrhage and exudate dominate the picture and are followed by detachment of the retina and secondary glaucoma.

Multiple tumors are frequently found in the same eye, and the differentiation of arteries and veins is often quite difficult due to the mixing of arterial and venous blood. Hypertrophy of the walls of the vein also adds to the confusion.

Hemangiomas involving other organs represent the systemic aspect of the disease with 25% having intracranial lesions.

The clinical diagnosis is dependent chiefly upon the ophthalmoscopic appearance of the fundus; the absence of a visible angioma makes the diagnosis difficult. The differential diagnosis includes Coat's disease, Eales' disease, multiple retinal aneurysms, and racemose hemangioma of the retina.⁵

The treatment of the retinal lesion has been by radiation, electrosurgery, and photocoagulation. Photocoagulation appears to be the method of choice when there is no retinal detachment. Treatment is directed exclusively to the tumor.

The most important complication is extensive retinal detachment (detachment fugax) which occurs a few hours after the treatment. The mechanism of this detachment is unknown, and spontaneous reattachment usually occurs in a period ranging from one week to several months.

Success with electrosurgical treatment was reported by Lewis^{6,7} in 1943 and 1947. Vail⁸ followed 47 cases over an 11-year period and reported that 70% of the patients treated were cured. The usual procedure is to apply surface diathermy over and

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around the involved area with micropunctures into the tumor.

Radiation therapy in general is indicated only in diffuse, extensive, and multiple lesions.

Clinical Cases

A family with angiomas of the retinae in which the affection has been transmitted as a dominant characteristic from the mother to at least 4 of her 5 offspring has been studied (Fig. 1). The mother, who has 6 siblings and 5 half-brothers and half sisters, has thus far been the only one of her generation to show any symptoms of the disease. Both of her parents are now deceased having had no apparent manifestation of the disease prior to their death at advanced ages.

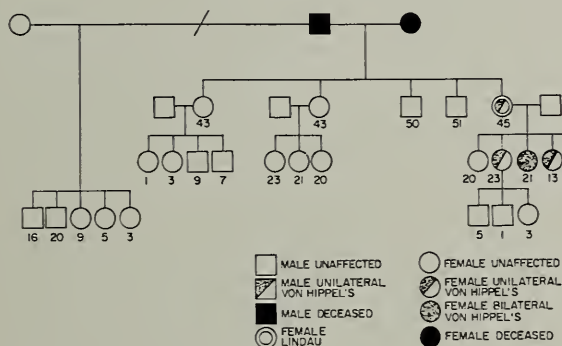


FIG. 1. Family pedigree.

Case 1. The mother had a total retinal detachment in the left eye which had progressed until it was impossible to recognize any detail. She gave a history of first noting a decrease in visual acuity at the age of 36 years.

The first recorded ophthalmoscopic examination was made 8 months later by a neurosurgeon whom she consulted because of signs and symptoms of increased intracranial pressure. He found that the left fundus had about 4 diopters elevation of the disc margin consistent with papilledema and marked retinal exudate, but without hemorrhages. The right fundus was reported to show no papilledema, and the retinal vessels appeared to be within normal limits. The remainder of the neurologic loss consisted of a right 7th cranial nerve loss of the central type, and increased deep tendon reflexes on the right. A craniotomy was performed with a preoperative diagnosis of meningioma of the petrous portion of the temporal bone on the right.

The pathologist reported the biopsy of the lesion as metastatic papillary adenocarcinoma of the thyroid (Fig. 2). The patient was treated with cobalt-20 treatments over the next 22 days. She was then discharged to be readmitted 2

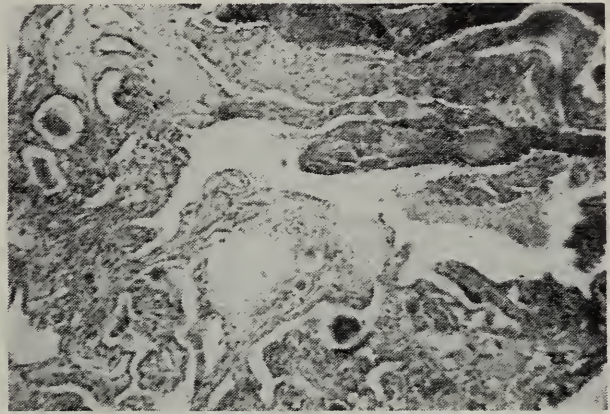


FIG. 2. (Case 1). Biopsy specimen of petrous portion of temporal bone. (H & E x 100.)

months later for a total thyroidectomy. Pathologic examination of the thyroid following the thyroidectomy failed to reveal the presence of the carcinoma, and the patient has remained free of the disease for the past 9 years.

The pathologist, on reviewing the slides (Fig. 2), thought that the tissue more closely resembled that of choroid plexus, which would be essentially the same picture as an hemangiomas of the choroid. Thus, we conclude that this patient had the classical von-Hippel-Lindau syndrome. We believe that the choked left disc was a manifestation of the retinal lesion, and not of increased intracranial pressure. The possibility of a lesion of the right temporal fossa producing a unilateral left papilledema with a completely normal right fundus must be extremely remote, if at all possible.

Case 2. In 1956, two years before the onset of the mother's problems, the left eye of the first affected offspring was enucleated following the development of absolute glaucoma at the age of 12 years. Examination of the specimen at the Armed Forces Institute of Pathology resulted in a diagnosis of von Hippel's hemangiomas of the retinae (Fig. 3).

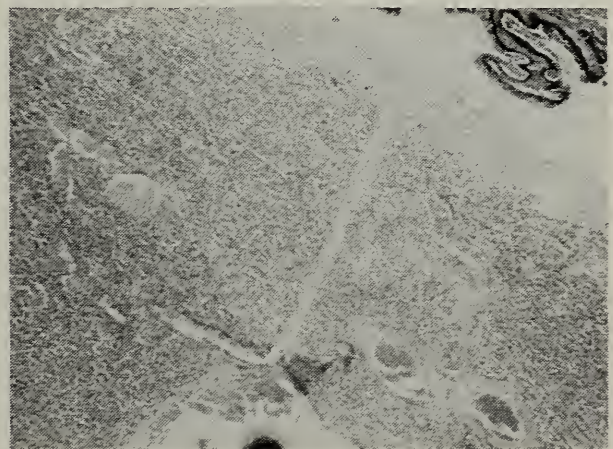


FIG. 3. (Case 2). Enucleation specimen. (H & E x 43.)

Case 3. In 1965, the second offspring also had her left eye enucleated following the development of absolute glaucoma at age 20. The pathologic diagnosis was von Hippel's angiomas (Fig. 4). This patient has developed a small nodule in the remaining right eye which thus far has required no treatment other than careful observation.

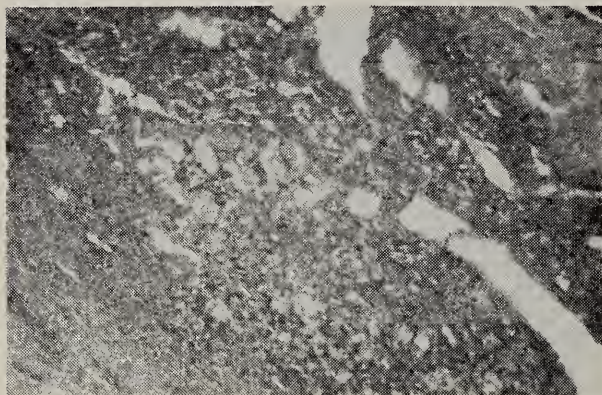


FIG. 4. (Case 3). Enucleation specimen. (H & E x 43.)

Cases 4 and 5. Examination of the remaining children revealed a boy (age 16) with marked retinopathy, exudate, hemorrhage, and 2 angiomatic masses in his left eye. A sister (age 13) has one localized angiomatic mass in the left eye. The third sister (age 20) is free of lesions at this time.

Comments

It is of interest that the abnormal genes first appeared in the mother. All other members of her same family or previous generations examined thus far have been free of the disease. The cases in her offsprings show a dominant pattern and also anticipation (e.g. the disease has manifested itself at an earlier age in the offspring than in the mother).

It is interesting also that the left eye of each affected member was the one initially involved, and that the lesions were in similar areas of the eye.

Soeb³ has emphasized that when the trait shows such a dominant pattern, the affected members should be counseled not to have children. As one can see by the pedigree, one of these patients already has 3 young children in whom the potential for angiomas retinæ is extremely high.

We have elected to treat the 2 younger

children with photocoagulation. The girl has shown dramatic response with her visual acuity returning to 20/25 in the left eye. The boy, in whom the lesion was much more advanced, has shown some reabsorption of the exudate but will require additional treatments. He demonstrated detachment fuglax within several hours after the initial treatment but had spontaneous reattachment over the next 4 days.

We believe that three errors in the management of this family have occurred. First, the family should have been informed of the significance of the pathologic diagnosis of von Hippel's disease following the enucleation of the first child's eye which would have enabled them to furnish this information to other examiners. Secondly, there was a misinterpretation of the tissue from the brain biopsy with subsequent needless thyroid surgery. Thirdly, there was a failure to counsel the patients as to the potential danger in any future offspring of incurring the disease.

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The author reviews the indications for tracheostomy and the technical details of the operation, thereby avoiding possible serious complications.

Considerations About Tracheostomy*

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Among life-savings operations, tracheostomy takes one of the first ranks. The principle of the operation, was known since early time in medicine. In 1826, it is said that Pierre-Fidel Bretonneau of Tours, France, well known for his research in typhoid fever and diphtheria, used tracheostomy for the first time in children with laryngeal Diphtheria and demonstrated its value in the treatment of this disease.¹ His pupils, Trousseau and Velpeau, popularized the operation and soon afterward it was used in all instances of laryngeal obstruction.

In 1943, after papers by Galloway and Seifert² concerning tracheostomy and anoxia, the operation was widely applied in patients with neurologic and pulmonary disorders, coma of varying etiology, and trauma, because the tracheal cannula facilitated the oxygen therapy and the mechanical aspiration of bronchial secretions.

Other procedures have been used as a substitute for tracheostomy in its life-saving role. Between 1910 and 1930, laryngeal intubation with the O'Dwyer tubes became very popular, and during this period tracheostomy was indicated as a palliative treatment in cases of advanced laryngeal cancer or with bilateral midline paralysis of the vocal cords. Today, tracheal intubation is frequently used instead of tracheostomy in instances of respiratory distress. Its ease of technic has made the procedure attractive. However, unexpected complications which do not fall into the scope of this paper, have lead to the belief by many that tracheal intubation in cases of respiratory distress should be used only as a preliminary step to tracheostomy, with the purpose to permit a quiet and anatomic operation, without the risks of brisk and

dangerous one-minute tracheostomies, which sometimes are followed by fatal accidents.

Tracheostomy is not an innocent operation; it has an operative and postoperative mortality estimated as 3 to 3.4% and late postoperative complications in 30 to 49.3% of cases.^{3,4}

To remember the risks and to discuss the means which may be taken to prevent complications is the purpose of this paper.

Complications

The operative and postoperative cause of death has been profuse hemorrhage in the majority of cases. In patients suffering with dyspnea for a prolonged period, as in patients with laryngeal cancer, the quick oxygenation when there is a high carbon dioxide tension and acidosis, may result in hyperkalemia, cardiac arrest and death.³ In similar cases the sudden change may eliminate stimulus to the respiratory center resulting in apnea without cyanosis and which may lead to death if artificial respiration is not used immediately. Alarming subcutaneous emphysema of the head and neck is another immediate and serious complication occurring in patients with a long history of pulmonary emphysema, especially if there is a strong cough reflex.

Better known complications are those appearing late in the postoperative period—tracheo-esophageal fistula, laryngeal stenosis, tracheal stenosis, pneumomediastinum and pneumothorax. These complications are more frequent in children.

Many tracheostomies in children with acute laryngeal inflammation, as epiglottitis or subglottic laryngitis can be avoided today by the use of steroids if the patient is seen in time to try the medication.

Indications and Methods

The history and an appraisal of the situation in detail is essential. The position taken by the patient to improve his breath-

*Read at the meeting of the Cuban Society of Otolaryngology in Exile, Chicago, October 12, 1969.

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ing, opisthotonus in congenital vascular anomalies, flexion of the neck in laryngo-tracheal obstruction may be important. Palpation and auscultation of the neck for the possibility of an anomalous vessel, as a horizontal innominate artery, or the thyroid ima artery, a supernumerary thyroid artery present in 7 to 10% of people according to some anotomists,⁵ is essential. Direct laryngoscopy in children and/or indirect laryngoscopy in adults may detect laryngeal disease. The esophagogram rules out the possibility of a double aortic arch. Attention must be given to these several tests before making a decision to do a tracheostomy.

One cannot wait for extreme asphyxia before deciding upon the operation, but even if placed in an embarrassing position we may attempt to avoid an emergency tracheostomy on the ward. In children intratracheal intubation or a bronchoscope passed through the glottis will transform an urgent tracheostomy into a normal operation. In adults, if respiratory distress is alarming, we have in addition to intubation the cricothyroid laryngotomy.⁶

The introduction of a flat cannula through the cricothyroid membrane after a short horizontal incision above the cricoid cartilage does not damage the laryngeal cartilages in adults and solves the respiratory emergency. We have several models of cannulas for this operation, and have used the so-called Butlin-Poirier trocar with excellent result. However, any curved plastic tube No. 18-20 may be introduced by this route into the subglottic space and upper trachea, providing the necessary relaxation for an immediate satisfactory tracheostomy.

In analyzing the operation step by step, one will realize that the neck may conceal pitfalls which may spoil the most beautiful and well conducted operation, and that there are some apparently unimportant details in the technic that, if overlooked, may lead us to a late complication.

First of all—the incision. I do not believe the horizontal incision is the most convenient in children, especially in those below 5 years of age. The diameter of the trachea, which in the new-born is 6 mm., may during the first 5 years reach 1 cm.⁷ The trachea is a vertical and mobile organ,

displaced vertically during deglutition; the tracheal cannula must follow this motion. With the horizontal incision, the cannula is submitted to two opposite forces:—the trachea pulls upward when the patient swallows, and the skin stops the outer end of the cannula. The result will be a posterior displacement of the cannula, which at this age may injure the posterior tracheal wall favoring the production of granulation tissue which later will produce scarring and possible stenosis (Fig. 1, A).

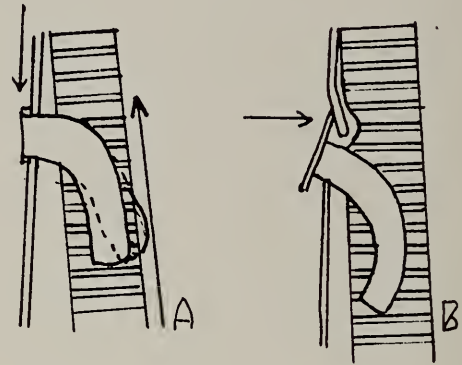


FIG. 1: (A.) The risk of posterior displacement of the tracheal cannula with an horizontal incision. (B.) The risk that the first tracheal ring above the tracheal opening, becomes depressed with an ill-fitted cannula.

Classically tracheostomy has been classified as *high*, *medial* and *low*, according to the place where the cannula is introduced, that is—above, at the level, or below the thyroid isthmus. In adults the location of the cannula is not very important, except in instances where the patient is to have an operation later on the larynx. Then the tracheostomy should be *low*. By contrast in children, due to the small diameters of the larynx and trachea, the laryngeal cartilages must go uninjured, since chondritis of the cricoid cartilage will lead to subglottic stenosis. Therefore it is generally agreed that in children tracheostomy should be at the level of the 3rd to 5th tracheal rings, i.e. below the isthmus of the thyroid gland.

While dissecting the neck to expose the trachea, the possibility of a vascular anomaly must be kept in mind. These anomalies have been the cause of all the possible catastrophic accidents in the course of tracheostomy. The anomalies may be congenital or acquired.

Holinger⁸ has described the great variety of congenital vascular anomalies—a double aortic arch is the most frequent; anomalies of the innominate artery producing tracheal compression and respiratory distress may be suspected after careful examination.

In older people, vascular anomalies in the neck are produced following vascular disease.⁹ An enlarged aortic arch with dilatation of the ascending aorta, elevates the dome of the arch causing vascular malpositions which are asymptomatic and, of course, unexpected. The change from a normal to an abnormal state has been gradual; the trachea is well developed, even may be ossified, and thus there is no tracheal compression and respiratory symptoms have not been produced by the change in the normal anatomy. In some anatomic specimens (Fig. 2), the vessels are shown to cross in front of the anterior surface of the trachea, or may be located so high that they are exposed to and may be damaged by the cannula. This is the cause of the

hemorrhage occurring one or two weeks after the operation.

Once the trachea is exposed, the dissection of the pretracheal fascia should be limited to the area where the cannula is to enter; an approach to make a thorough dissection of this fascia exposing the whole anterior wall of the trachea and its flanks, is unnecessary and dangerous. This is what is done when one opens the gate to the mediastinum for mediastinoscopy.¹⁰ I believe that such dissection of the pretracheal fascia is the cause of many pneumomediastinums observed after tracheostomy. This has been commented upon also by Putney.¹¹

I believe the best way to open the trachea, is to create in its anterior wall a round window of the same diameter as the cannula selected for the case. Checking constantly, at this moment, the lumen of the cannula, it is not difficult to make a tracheal hole of the same size; thus the possibility of air leaking around the cannula is considerably diminished.

Ordinarily, cannulas are metallic, and each surgical department should have a complete set of all the models and sizes available for choice of the more convenient, according to the length and width of the neck and the distance between the skin and the trachea. The cannula should be aligned with the lumen of the trachea. Sometimes a too long and curved cannula erodes the anterior wall of the trachea and a subjacent blood vessel resulting in fatal hemorrhage.

After the cannula has been placed and is found to transmit pulsations, it will herald the need for a change to a shorter cannula, otherwise there is a risk of an accident.

In an attempt to prevent tracheal injury, less rigid cannulas have been made. Nylon reinforced Latex tubes No.00 have been used in cases of tetanus neonatorum, which may permit connection with the intermittent positive pressure Breather (IPPB) through a T-tube connection.¹² Cannulas used in newborns have a length of 6.65 cm., but only 4 cm. of its length enters the trachea.

Another type of cannula very useful in children with respiratory diseases is the Atkins-Cannard cannula,¹³ which is ideal for the use of IPPB. This cannula has an in-

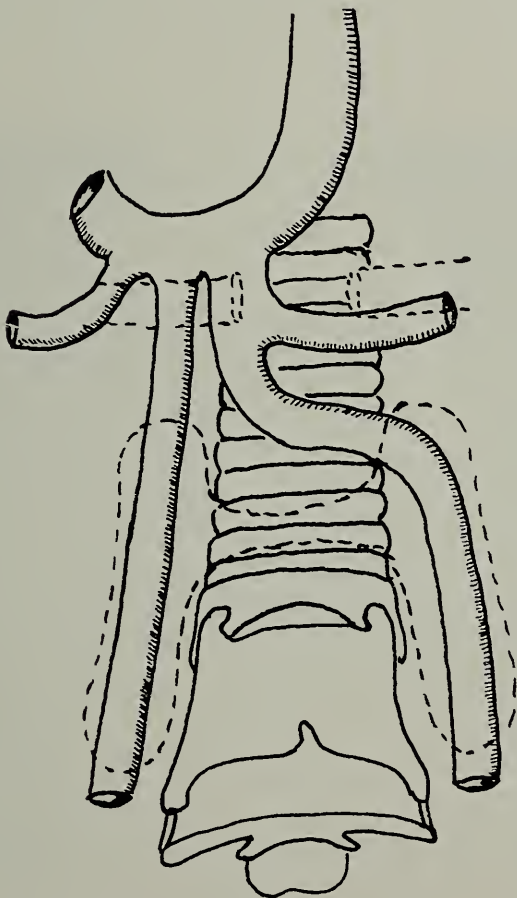


FIG. 2: Abnormal position of the right innominate artery possibly displaced after acquired vascular disease. (Modified from Jarvis⁹.)

flatable cuff which the authors say does not injure the tracheal mucosa; the inner tube has a connection for the Foregger device. Cuffed cannulas have been used with care; some authors consider the cuff as potentially dangerous for the tracheal mucosa especially in children.

In children needing tracheostomy for laryngeal obstruction, I prefer the model introduced by Holinger, having a rectangular plate and a scroll to secure the inner tube. This model, even if displaced from its correct position, does not press the neck above the tracheostoma. Fearon and Whalen⁷ have added to this model a device in the inner tube to be attached to a respirator when assisted ventilation is needed.

Models with the plate shaped like a clover or in triangle, which was the first model introduced by Krishaber may be used in children above 7 years or in adults. In younger children the pressure made by the plate, if it is not in the proper position, may sink the first tracheal ring above the tracheostoma, resulting tracheal stenosis decannulation is made difficult. (Fig. 1B)

This is why ill-fitted cannulas must be changed for another better adjusted to the anatomic proportions of the trachea.

Nothing is more useful than lateral radiography of the neck using soft tissue penetration as soon as the general condition of the patient permits it. I follow this rule made many years ago by the Jacksons.¹⁴ The lateral view provides evidence of the real position of the cannula in the trachea.

An apparent well fitted cannula selected for the operation may be a little short and after a while, because of movements of the neck or because the cannula is tied too loosely, it may partially come out of the trachea and cause pneumomediastinum (Fig. 3).

It has been said that pneumomediastinum is overlooked until it becomes massive, and that in the early stages of this complication only a routine x-ray examination may discover it. Thus, if there is a fault in the fitting of the cannula one has time to make the correction. After the operation the patient, if a child, must be placed under the tent with a croupette, and the adults with a vaporizer in the vicinity.

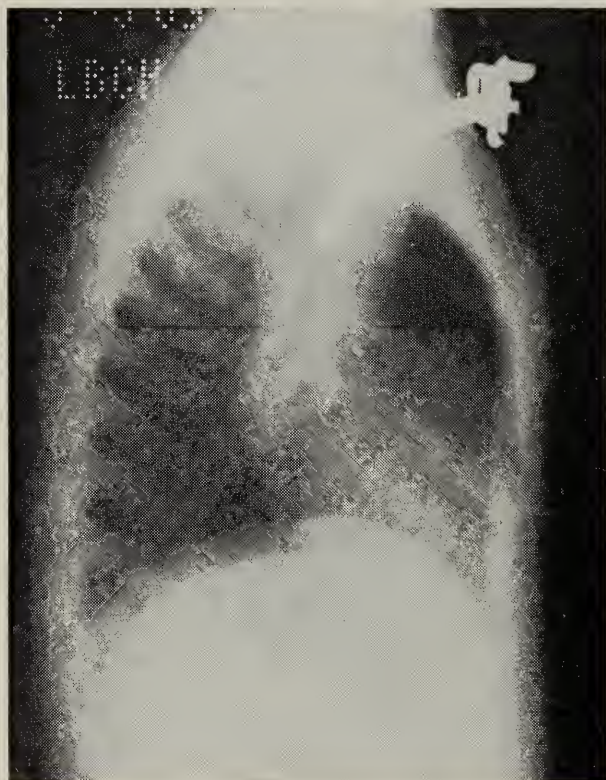
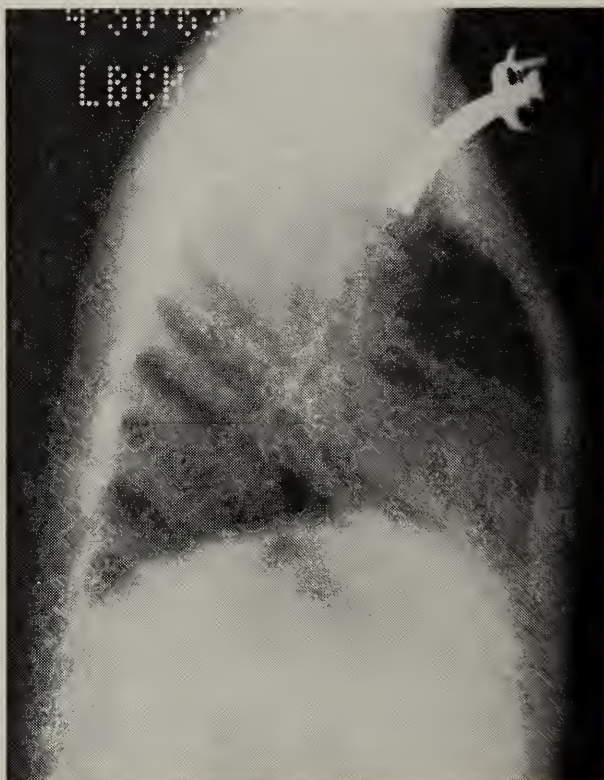


FIG. 3: (A.) A short cannula well placed during Tracheostomy, is partially displaced soon thereafter provoking a small pneumomediastinum.



(B.) the defect disappears when a longer cannula is properly fitted into the tracheal lumen.

The inner tube of the cannula must be observed periodically to remove it for cleaning as soon as signs of obstruction appear. The outer tube and the plate should be thoroughly tied around the neck to eliminate the possibility that the cannula becomes loose or is expelled. When changing the external cannula every two or three days, the nurse must be taught to keep ready at hand, a substitute cannula of the same model and size, for introduction as soon as the other is removed. More than one child has died on the ward because these rules have not been followed to the letter.

Summary

Tracheostomy is an interesting operation. With a general appraisal of all the problems which might appear in any case, its present mortality and complications should decrease. We have to make it not only a life-saving but a safe operation.

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ARE PHYSICIANS DRUG-DUMB?

Do physicians continue to prescribe certain drugs—year after year—even though these drugs are ineffective and/or unsafe?

I'd have to answer Yes—if I agreed with the Food and Drug Administration's recent stepped-up drive against drugs which practicing physicians have been prescribing for years.

FDA's drive—largely against the products of research-oriented companies—comes at a time when the federal government has announced that the National Institutes of Health is reducing its research grants. Such cuts threaten to close down a number of medical research centers. Certainly, this is *not* the time to pull the rug

out from under pharmaceutical companies that—the record shows—have been pioneers in research.

Or . . . could it be that the FDA is 100% correct and the nation's doctors are not familiar with the drugs they prescribe? I find it hard to believe that a physician would continue to use drugs—year after year—if *these drugs did not help his patients*. Yet, in net effect, that's what the FDA says has been happening.

I don't believe that doctors are drug-dumb! My vote of confidence goes to the nation's practicing physicians and their experience with drugs!

IRVING RUBIN, R.Ph. Editor. (Reprinted from *Pharmacy Times*, November, 1969)

STAFF CONFERENCE

Vanderbilt University Hospital* Post-Mature Pregnancy and the Pelvic Delivery of a Hydrocephalic Infant

DR. ANGUS M. G. CROOK: The case to be presented today represents a dual complication of post-maturity and hydrocephalus and will be presented by Dr. Robert Smith.

DR. ROBERT SMITH: (VUH # 47 04 94) A 21 year old primigravida, was first seen in the Obstetrical Outpatient Clinic on July 28, 1969. Her last menstrual period was Oct. 5, 1968, and she had received no prenatal care. At the time of her initial visit she was therefore 42 weeks by gestational dates. History revealed a 25 pound weight gain. The patient noted the onset of fetal movement sometime in the month of February. Her past surgical and medical history and family history were unremarkable.

Examination revealed a well developed and well nourished white woman in no acute distress. B.P. was 130/80. Examination of the abdomen revealed a term size uterus with a fetus in oblique presentation. The presenting part was floating. Examination revealed a pelvis adequate for delivery. Fetal heart tones were heard in the right lower quadrant at a regular rate of 140 beats per minute. The cervix was 2 cm. in length; it was long and closed. Laboratory studies revealed a PCV of 34%. The blood type was B positive and the antibody screen was negative.

The patient's menstrual dates were vague, and she was accordingly followed at weekly intervals. The cervix, however, remained closed and unchanged during the subsequent 3 weeks. She was at this time evaluated for the induction of labor.

DR. CROOK: The patient at this point was referred to Dr. Goss for evaluation as a candidate for possible induction of labor.

DR. DONALD GOSS: In our clinic population it is extremely difficult to establish an accurate expected date of confinement as many patients have only vague recollections of the date of their last menstrual period. Correlation of uterine size and the onset of quickening are perhaps our most

significant parameters in managing many patients. Most primigravidas note the onset of quickening during the 19th or 20th week of gestation, and multigravidas may note quickening a week or two earlier. X-ray examination for the presence of the distal femoral epiphysis in estimating fetal age is occasionally of value in term pregnancies. In the primigravida, however, progressive effacement of the cervix, descent of the presenting part and dilatation of the cervix represents one of the more significant parameters of imminent labor. A vast majority of patients who present themselves to our clinic with descriptive dates of post-maturity are in reality 2 to 3 weeks before term rather than candidates for the classification of post-maturity. It is extremely rare for us to see post-maturity, and if induction of labor were indiscriminantly performed on all patients who presented with dates of post-maturity we would no doubt see a higher incidence of neonatal morbidity associated with hyaline membrane disease and other complications associated with premature inductions. It is also important to evaluate the patient's menstrual cycle in calculating her expected date of confinement. The standard method of calculating expected date of confinement is based on a 28 day menstrual cycle. Patients with a prolonged but ovulatory cycle would be normally expected to deliver later than the calculated EDC by Nagele's rule. We have been impressed, however, that an ominous sign in an undelivered patient is the onset of lactation, as this is very often correlated with post-maturity and impending placental failure. Analysis of the urinary excretion of estriol and amniotic fluid creatinine have, however, placed our ability to evaluate the patient with questionable dates on a more scientific basis. Increased utilization of these laboratory determinations will in large part eliminate the confusion related to calculating these patients' status.

DR. DAVID PERRAS: The salient feature in the management of post-maturity is the detection of the patients who have associated placental insufficiency. It has been well established that estriol determinations are an aid in selecting the fetus at risk. For example, in several large series, 20 to 30%

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of patients with post-maturity by gestational dates presented with low estriols. Of these, 60% developed evidence of placental insufficiency. Conversely, 25% with normal estriol levels had evidence of placental insufficiency in labor.

At term, and beyond, a level of 7 to 12 mg. per 24 hours is considered low, and 4 mg. per 24 hours is indicative of severe distress. Beware of placing too much emphasis on a single isolated specimen: optimal use consists of three determinations 24 hours apart. A decrease of 50% is significant. The validity of estriol levels is enhanced if coupled with amniocentesis to detect muconium staining.

One may therefore say that induction is not needed in patients with high and stable levels of estriol. Those with low borderline levels should be considered for induction with monitoring in labor. In patients with severely depressed levels, especially when associated with muconium stained fluid, delivery by cesarean section is recommended.

DR. SMITH: Twenty-four hour urine estriols were obtained on two occasions; the values were 5.5 and 4.3 mg./24 hours, respectively. These values are considerably below those anticipated in the 3rd trimester in a normal pregnancy. Because the patient had a clinically unfavorable cervix and an unengaged presenting part, she was admitted to the hospital, and a plain film of the abdomen revealed a huge hydrocephalic fetus presenting as a floating breech. Pelvimetry evaluation of her pelvis, clinically and by x-ray, revealed adequate pelvic dimensions. It was the recommendation of the consultants that pelvic delivery be pursued. Following admission and cross-match of blood, induction was started with oxytocin (Pitocin) intravenously. In addition, the patient received 20 mg. of conjugated estrogens (Premarin) intravenously in an effort to facilitate softening of the cervix. The membranes ruptured spontaneously, and she proceeded rapidly to full dilatation. Following a 1½ hour second stage of labor, the patient was taken to the operating room where extraction of the presenting breech was performed under general anesthesia. Delivery of the infant could be effected only as far as the scapulas. A retractor was placed under the bladder to protect the anterior vaginal wall and bladder, and a 15 gauge needle was passed through the foramen magnum. Approximately 1100 ml. of cerebral spinal fluid was drained off, following which the vertex was easily delivered through the maternal pelvis. Exploration of the uterus following delivery of the stillborn infant revealed no defects within the uterine wall. The patient's

postpartum course was entirely unremarkable except for bladder atony which required an indwelling catheter for 24 hours.

DR. GOSS: The diagnosis of hydrocephalus was not entertained in this patient until definitive x-ray diagnosis was established. Pelvic delivery, however, with a stillborn infant is the indicated method of delivery in most instances of hydrocephalus. Cesarean section to obtain a live born infant with this congenital anomaly is not indicated in modern obstetrics and presents the family with severe financial and medical problems. Hydrocephalus may be produced by a block in the cerebral spinal canal in several areas from the lateral ventricle to the more common point of obstruction in the aqueduct of Sylvius. Feeney and Barry report a series of 304 hydrocephalic deliveries in England with an incidence of 2.5 per 1,000 deliveries. Sixty-seven percent of their patients presented as vertex; 29% presented as breech; 6% presented as transverse lies and 3% were brow presentations. Two-thirds of the infants were described as having mild hydrocephalus and 40% presented spontaneously without operative reduction of the hydrocephalic vertex. Sixty percent, however, required drainage of the cerebral spinal fluid to reduce the vertex size for delivery. It is of interest that the diagnosis of hydrocephalus was not made until following delivery in 120 cases; in the vast majority of the remainder the diagnosis was not made until a prolonged labor had prompted increased scrutiny and x-ray examination of the fetus in utero. In the series reported, there were 9 ruptured uteri and 9 maternal deaths.

The predelivery diagnosis of hydrocephalic infant may present some difficulty. Even with x-ray examination, a definitive diagnosis may be difficult except in cases where the vertex obviously is distended excessively. Vaginal delivery is the method of choice; when the vertex presents a trocar needle can be passed between the widely separated sutures or through the thin calvarium as soon as the cervix is a few centimeters dilated. This will effect reduction in the dimensions of the fetal vertex and allow delivery with decreased risks to the mother. In breech presentation, the proper course is to allow spontaneous or

assisted delivery of the extremities and body of the infant and then drain the distended vertex by puncture of the vertex through the foramen magnum. In infants who have an associated spina bifida or meningomyelocele, drainage may be effected by inserting a metal catheter through the spinal canal into the distended vertex and effect drainage in this manner. The majority of infants will be stillborn. Since the prognosis for infants with severe hydrocephalus is extremely poor, one is rarely, if ever, advised to perform a cesarean section to deliver a live, severely hydrocephalic infant.

DR. JOHN ZELENIK: It is of interest in the present case that this patient presented with a syndrome of post-maturity and low values of estriol. Low estriol levels are characteristically present in anencephalic pregnancies and in these infants the adrenals are markedly atrophic. A correlation of low estriols with hydrocephalus is, to the best of my knowledge, not yet reported. The pituitary and adrenal glands of the fetus presented today were studied microscopically and were found to be entirely normal. It is possible that the hydrocephalic fetus fails to stimulate his adrenals to

function in their vital role in the production of pregnancy estriol.

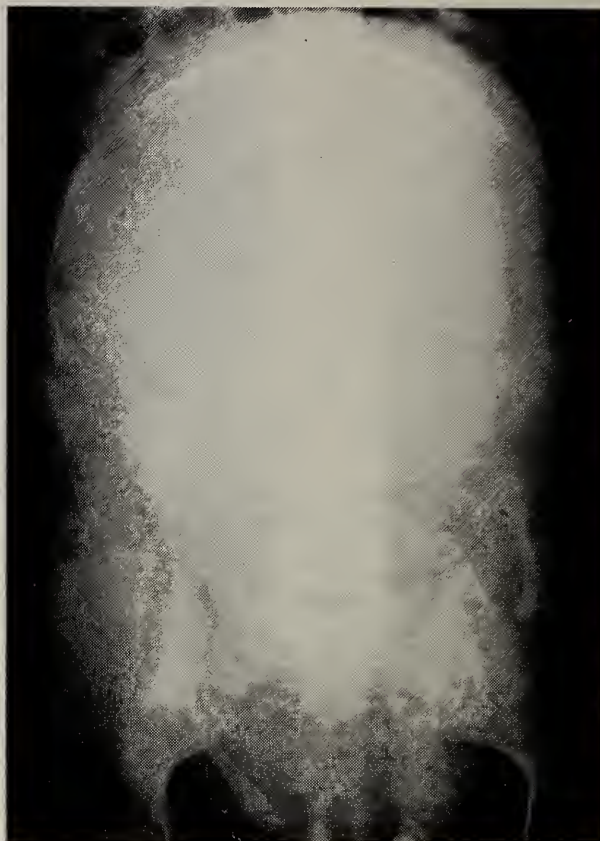


FIG. 1. Plain film of abdomen revealing hydrocephalic fetus.

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TMA Physicians Attend Denver AMA Meeting

The 23rd AMA Clinical Convention was held in Denver, Colorado November 30 to December 3. The following is a list of Tennessee physicians who attended the meeting as furnished by the Records Department of AMA:

Arthur R. Anderson, M.D.
Nashville, Tennessee

John H. Burkhart, M.D.
Knoxville, Tennessee

Ralph J. Cazort, M.D.
Nashville, Tennessee

Francis H. Cole, M.D.
Memphis, Tennessee

Ray E. Curle, M.D.
Memphis, Tennessee

Wallace T. Dooley, M.D.
Nashville, Tennessee

J. C. Gaw, M.D.
McMinnville, Tennessee

Howard B. Hasen, M.D.
Memphis, Tennessee

Alvin J. Ingram, M.D.
Memphis, Tennessee

David H. Knott, M.D.
Memphis, Tennessee

K. M. Kressenberg, M.D.
Pulaski, Tennessee

William F. Meacham, M.D.
Nashville, Tennessee

Emmett P. Mobley, Jr., M.D.
Paris, Tennessee

Harmon L. Monroe, M.D.
Erwin, Tennessee

Tom E. Nesbitt, M.D.
Nashville, Tennessee

Donald Pinkel, M.D.
Memphis, Tennessee

Ephriam B. Wilkinson, M.D.
Memphis, Tennessee

Clay A. Renfro, M.D.
Kingsport, Tennessee

Charles R. Riggs, M.D.
Memphis, Tennessee

John L. Shaw, M.D.
Greeneville, Tennessee

Charles C. Smeltzer, M.D.
Knoxville, Tennessee

Joe E. Tittle, M.D.
Oak Ridge, Tennessee

Austin R. Tyrer, Jr., M.D.
Memphis, Tennessee

William O. Vaughan, M.D.
Nashville, Tennessee

Julian K. Welch, Jr., M.D.
Brownsville, Tennessee

T M A JOURNAL MEDICAL DIGEST

News of Interest to Doctors in Tennessee

HIGHLIGHTS OF BOARD OF TRUSTEES MEETINGS - - - OCTOBER 12 AND SPECIAL SESSION OF NOVEMBER 23

TMA BOARD HOLDS REGULAR AND SPECIAL SESSION . . . The Board of Trustees conducted its fourth quarter meeting on October 12 in Knoxville, and due to the excessive amount of business, a special meeting on November 23 was held in Nashville . . . Highlights of the regular meeting included reports of activities from the various committees of the Association and a broad discussion on the Utilization Review Committee structure throughout the state . . . The Trustees designated a committee within the Board to further study the Utilization issue and bring a recommendation in the form of a resolution to the House of Delegates.

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BUSINESS ACTIONS . . . Authorized the Editor and the Executive Director to contract with Williams Printing Company of Nashville for publication of the TMA Journal . . . Recommended that a resolution be prepared commending Dr. R. H. Hutcheson, retired Commissioner of Public Health, the resolution to be presented to the House of Delegates at the annual session in April . . . Considered a request for funds from the TMA Student Education Fund, but deferred action.

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MEDICAID . . . Heard a detailed report on the problems involved with the Medicaid program in Tennessee . . . Endorsed a report from the State Public Health Council wherein that body presented improved objectives of working toward a goal of 100% payment to physicians for usual and customary professional charges. Also approved a letter to be sent to the membership over the President's signature, bringing physicians up to date on the actions taken by TMA Board in the Medicaid problem.

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AMENDMENTS TO CONSTITUTION AND BY-LAWS . . . The Board considered numerous amendments to the Constitution and By-Laws as developed and recommended by the Committee on Planning and Development. Principal discussion ensued around the authority of the TMA Council and the functioning of the utilization committees through the county societies . . . The Board appointed a temporary Committee on Constitution and By-Laws to develop strengthening amendments and to bring these to the January, 1970 regular meeting of the trustees for further study . . . Also, the trustees completed the schedule for officer and trustee visits to the various county medical societies throughout the state.

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TENNESSEE GENERAL ASSEMBLY . . . The Board determined that during the 1970 General Assembly it would be beneficial to have at least three doctors present each day that the General Assembly is in session. This

would include the "doctor of the day" serving at the First Aid Station sponsored by TMA . . . Also designated members of the staff that will be working in the General Assembly, and considered selection of an attorney to further assist in lobbying efforts.

* * * * *

OTHER ACTIONS . . . Concern was expressed over the liaison between the TMA and IMPACT on preference of candidates for the U.S. Congress and state legislature. Ideas were presented relative to developing closer liaison between TMA and IMPACT . . . Heard a report from TMA's legal counsel on the matter of the Henry County Hospital where the case in which TMA is involved has now been appealed to United States Supreme Court. This was the case where an osteopath applied for privileges on the hospital staff . . . The Executive Director reported on the universities within the state where the AMA Council on Foods and Nutrition will present seminars during the 1969-70 academic year . . . Considered and turned down the request for endorsement of Medi Card . . . Heard a report concerning the findings of a survey team of consultants on the status of emergency medical service available in Tennessee. It was found that the report and recommendations will involve legislation and the Board referred the study to the Legislative Committee . . . Adopted the 1970 budget and approved the fourth quarter financial statement . . . Reviewed a detailed report, including proposed drawings, for an addition to the TMA headquarters building. Several proposals were made and the action taken by the Board was to authorize the Executive Director to proceed with the plan as selected to determine the zoning restrictions . . . Approved a drug abuse educational program proposed by the TMA Woman's Auxiliary, under the guidance of the TMA Advisory Committee to the Woman's Auxiliary.

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SPECIAL BOARD SESSION . . . On November 23, the Board met in Nashville, and the principal business involved final action on expansion of the headquarters building, as the result of obtaining a variance on the zoning which will allow the Association to construct the building within the limits desired . . . Heard a final report relative to obtaining an attorney as a legislative lobbyist for the 1970 General Assembly session . . . Named TMA members for appointments to the Mid-South Regional Medical Program committees and the Regional Advisory group . . . Considered a request for physician assistance, on a consultant basis, for the fiscal intermediary on Medicare and Medicaid . . . Received a report of a special committee for expanding the Board of Trustees.

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EXPERIMENTS IN HEALTH CARE FOR THE POOR CONDUCTED IN TENNESSEE . . . Some of the most extensive experiments in health care for the poor are being carried out by Meharry Medical College in Nashville, according to Medical News Report. Meharry Medical College has shifted emphasis to community service, helping disadvantaged . . . Since then through the Meharry Foundation, OEO, and other federal grants faculty has been increased, construction started on master plan calling for 18 buildings. The enrollment is now 450, is expected to reach 1,500 by 1975. Last spring the school had 1,080 applicants for 72 positions. Only one-third of applicants were Negro, but five of six students selected were Negroes . . . Meharry now recruits on campuses all over the United States, taking potential MDs, dentists to school for summer coaching on \$1,000 scholarships. If they can't gain admission, they become technicians.

Public Service

Communications Legislation

Hadley Williams, Public Service Director

MID-STATE MEDICAL ACADEMY LOSES ACCREDITATION . . . The Commissioner of Public Health, Dr. Eugene W. Fowinkle, issued a show cause order in early November which denies the Mid-State Medical Academy in Nashville from continuing to operate a school for training medical laboratory personnel. The Commissioner found from evidence presented by witnesses that the school was deficient in trained and experienced teaching staff and in teaching aides and equipment. Legal counsel for the school requested permission for the current class to complete their training and to be allowed to take the State's examination for licensure. Dr. Fowinkle granted this request with the provision that no further students be contracted with, enrolled in, or admitted to the school without written approval of the Commissioner and that only students having begun classes on or prior to September 9, 1969 will be allowed to take the examination prepared and graded by the State. Authority for such action by the Commissioner was granted as a result of the passage of the TMA endorsed Medical Laboratory Licensure legislation during the first session of the 85th Tennessee General Assembly.

* * * * *

GENERAL ASSEMBLY BEGINS SECOND SESSION . . . The Tennessee General Assembly reconvened January 13, 1970 for the second session of the 86th Assembly. A total of 45 legislative days are available to the legislators during the year. TMA will again co-sponsor a First Aid facility in the Capitol with the Tennessee Hospital Association. Physicians who would like to volunteer their services to staff the station one day during the current session are urged to contact TMA Headquarters in order to have a day assigned them.

* * * * *

GOVERNOR CALLS FOR CONFERENCE ON DRUG ABUSE . . . Governor Buford Ellington recently ordered a conference and workshop on Drug Abuse and Drug Dependency to be held in early Spring. The purpose of the meeting will be to develop a statewide program of prevention, treatment and control. Dr. Frank H. Luton, Commissioner of Mental Health, said planning for the conference will be made by representatives of TMA, State Government and Vanderbilt University and that the Department of Mental Health has been designated by the Governor as the coordinating agency. Top National authorities in the field of Drug Abuse and Dependency are expected to participate and the program will be designed to attract participants from all geographical areas, age groups, career fields, lay groups and individuals in the state. Dr. Frank W. Stevens of Nashville is chairman of the TMA Mental Health Committee.

* * * * *

REPORT ON TENNESSEE'S EMERGENCY MEDICAL SERVICES MADE . . . The Governor's Advisory Committee on Emergency Medical Services has recommended legislation which would include the regulation and licensing by the State of public and private ambulance service, inspection and certification of

ambulance vehicles and the training of ambulance drivers and others in emergency medical care. The recommendations came after the committee received the results of a statewide survey on Emergency Medical Services made by the University of Tennessee. The report said ambulances and their crews in the state are inadequate; hospital emergency rooms lack needed equipment; and emergency medical communications are poor. The survey also revealed that more than fifty percent of rural traffic victims die directly as a result of inadequate medical attention. Three-fourths of the State's ambulance services are operated by funeral homes and the report found that ambulance service varies widely, from municipal firms employing crews to a taxi company that used a cab as an ambulance. The Governor's Committee is composed of 21 persons, five of which are physicians. TMA members on the committee are Drs. C. Robert Clark of Chattanooga, Byron O. Garner of Union City, Edmund W. Benz of Nashville, Daniel J. Scott, Jr. of Memphis and James C. Prose of Knoxville who serves as chairman.

* * * * *

TENNESSEE AUXILIARY RECEIVES AWARD OF MERIT . . . The Woman's Auxiliary to the Tennessee Medical Association was one of nine state associations to receive an Award of Merit during the July AMA Convention. Also, The Chattanooga-Hamilton County Auxiliary was one of the seven county auxiliaries honored for their achievements. The 91,167 members of the AMA Woman's Auxiliaries across the Nation contributed a record \$1,100,000 for AMA-ERF and for loans and scholarships to young people interested in careers in field allied to medicine. The Tennessee Auxiliary amassed the largest per capita donations in their membership category. Mrs. J. Ralph Rice of Nashville is the current Tennessee president.

* * * * *

HOW'S THIS FOR INCOMES? . . . Under new contracts in New York for construction workers, a sheet-metal worker could earn \$51,802 a year if he worked as long as the average physician, about 60 hours per week. Medical News Report says that even with a month's vacation he could earn \$49,458. A carpenter could earn \$48,973. The new contract calls for a 50% increase for sheet-metal workers over the next three years (up to \$11.72 per hour and \$23.44 an hour for overtime). Carpenters will earn \$11.08 an hour and after 35 hours overtime pay will be \$22.16 per hour. Labor leaders, often the most critical of physician's incomes, are not likely to point out these figures.

* * * * *

QUICK AND INTERESTING FACTS FROM MEDICAL NEWS REPORTS . . . There now appears there will be no need for the doctor draft for the next two years as Government expects to obtain military needs thru regular procurement programs . . . Governor Nelson Rockefeller is said to be planning to urge New York Legislature, as he has for the last 3 years, to enact a universal state health insurance plan . . . Social Security Administration reports total expenditures on health care reached \$60.3 billion during fiscal 1969, a growth of 11.9% . . . More new medical schools have been established during past 5 years than in previous 25 . . . Number of MDs in internships and residencies have doubled since 1950, from 21,500 to 44,000 with 13,500 of this number graduates of foreign medical schools . . . More than 10% of U.S. physicians (29,727) work for Government which is more than the total number of MDs in 23 states . . . Over 29 million Americans were admitted to a hospital in 1968 and on an average day over 1,370,000 Americans are in the hospital.

President's Page



FRANCIS H. COLE

As this issue of the JOURNAL reaches you, the 1970 session of the Tennessee General Assembly is about to begin, and matters of fundamental importance to the health care of the people of our State will be under consideration. As government at all levels participates increasingly in medical affairs, and as third-party payment plans generate larger amounts of health care financing, the yearly flood of new legislative proposals will inevitably increase. In addition, several important items are carried over from the 1969 session. The bill to require health insurance funding of chiropractic manipulations will be considered early by the Senate Commerce Committee. This bill has already passed the House, and its enactment by the Senate would lend undeserved dignity and financial rewards to an unscientific cult.

Certain attempts to further modify the Medical Licensing Statutes in favor of foreign physicians are likely to be made, and a comprehensive plan to improve emergency medical service in Tennessee will possibly be introduced by the State administration. The progress of Medicaid will come under detailed scrutiny, and the future of this massive program may well depend upon the adequacy of its funding in this General Assembly.

Optometrists, podiatrists, mental health organizations, pro- and anti-abortion reform groups . . . these are among the multitudes of organizations and individuals who have sincere and legitimate concern in health care legislation, and who will exert pressure for action on bills affecting their particular interests. Physicians must examine all proposals and attempt to influence legislation in the interest of the entire population.

The central office staff of TMA and the Legislative Committee will keep a close and constant vigil, and can quickly call our attention to legislation affecting health care and the practice of medicine. They cannot be expected to do more than this. Physicians must inform themselves, involve themselves, keep in close touch with their elected representatives, and present valid information to influence the actions of the Assembly for the protection of health care in our State and the preservation of the free enterprise system under which we operate.

There seemed to be definite anti-medicine bias in last year's legislative activities, and our neighboring states report the same attitude. This appears to be directed more at organized medicine, and the relationship of individual physicians with individual legislators continues to be good. Physicians will be asked to staff a First Aid Station again this year, and will also be urged to visit the Capitol while the Assembly is in session, to meet with Mr. Ballentine, Mr. Williams and Mr. Windham of TMA Staff, and with the legislators. This is an educational experience not to be missed. Meanwhile, ascertain the status of bills in progress, learn the TMA position and the reasons for the position, and translate your personal relation with your legislator into an asset for your representative medical association.

Sincerely,

Francis H. Cole M.D.

President

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JANUARY, 1970

EDITORIAL

NATHANIEL SHOFNER— PAST PRESIDENT

For a third time in 1969 it has become my duty to mark the death of a Past President of our Association.

"Nat" as he was known by his colleagues was quiet in demeanor, a gentleman in the fullest sense of the term, an accomplished surgeon and a leader in the profession, serving it not only as President of the Tennessee Medical Association in 1949-50, but also as President of the Nashville Academy of Medicine, Davidson County Medical Society in 1940.

Though born in Erin, Tennessee, he grew up in Mt. Pleasant where his father was president of a bank. He received his secondary school education at the Howard Institute of Mt. Pleasant, entering Vanderbilt University in 1911, to receive his bachelor's degree in 1915. During these years he was active in the Dramatic Club, the Glee Club

and was editor of *The Hustler*, and held membership in the Calumet Club, the Owl Club and the Commodore Club. He received his M.D. degree from Vanderbilt University School of Medicine in 1919, finding time to be the editor of the 1919 annual, "Commodore."

After an internship at St. Thomas Hospital, under the tutelage of Dr. William Haggard he served for four years (1920-24) as surgical resident at Lakeside Hospital in Cleveland on the service of Dr. George Crile. Upon the opening of the Cleveland Clinic Hospital he became its first surgical resident, 1924-25. This was followed by a year's travel to visit clinics of Europe on a Crile Scholarship.

Dr. Shofner began practice in Nashville in 1926, bringing to the city a knowledge of thyroid disease which soon established him as consultant in this sphere and as an expert in thyroid surgery. In those early days he contributed much to Vanderbilt University School of Medicine both as Assistant Professor in Anatomy and as Assistant Clinical Professor of Surgery. Too, as did so many of his colleagues in those earlier days, he devoted many hours to teaching at Meharry Medical College. In addition to his membership in the Nashville Academy of Medicine, TMA and the AMA, Dr. Shofner was a member of the Nashville Surgical Society, the Southeastern Surgical Society, the Cleveland Clinic Fellowship Association and was a Fellow in the American College of Surgeons. He was a member of the staff of each of Nashville's hospitals. He had much interest in the American Cancer Society, serving as a member of the Board of the Nashville-Davidson County Unit for fifteen years.

The subject of Nat's Presidential Address, given in Memphis in 1950, was "The Tennessee Plan"¹ He devoted much time to this important area of the Association's activities and continued to serve as Chairman of the key Prepaid Insurance Committee into 1955 when he relinquished this post to Dr. James Kirtley.

In his address Dr. Shofner reviewed the beginning of the concept of voluntary health

1. Shofner, N. S.: The Tennessee Plan, J. Tennessee M. J. 43:114, 1950.

insurance in the 1930's, stemming probably from the depression days—the first statewide programs, California in 1939, Washington in 1940—the AMA's reports on these for circulation and its establishment of the Council on Medical Service to facilitate exchange of data accumulating in experiments of this nature. He reviewed the beginning study by TMA in 1940, and the establishment of the Prepaid Insurance Committee in 1946 to develop a plan. This Committee, consisting of four laymen and five doctors, offered the Tennessee Plan for approval by the House of Delegates in 1949.

In his Presidential Address, Dr. Shofner reported the selling of 100,000 policies, 1600 cooperating doctors and 18 insurance companies as underwriters. He recounted much of the story of the development of the Tennessee Plan.

I became a member of the Committee on Prepaid Insurance that year, 1950, and had the opportunity of observing Nat's contributions to this large task. His annual reports as Chairman to the House of Delegates give but an inkling of the many knotty problems which needed constant attention for solution—problems encountered by the insurance companies, the buyers of prepaid insurance, industrial management and members of the farm organizations, and the Wage Stabilization Board. Dr. Shofner's attributes as a gentleman and as a diplomat carried him through the difficult problems of adjudicating the desires and demands of groups of our members in regard to fee schedules, and to explain the philosophy of prepaid insurance and its needs by the great mass of our people for whom prolonged or serious illness could spell the difference between continued modest living and medical indigency. He needed to control the impatience of certain of the medical specialties until sufficient actuarial information had accumulated to permit underwriters to arrive at rational premium levels.

His last report as Chairman of this important facet of TMA activities in 1955 revealed that 766,000 Tennesseans were enrolled under the Plan, that 81% of TMA members were cooperating in it, and that 36 underwriters were selling the Tennessee Plan.

In two decades of participation in TMA

activities and as a member of the Committee on Prepaid Insurance your Editor judges this Committee to have faced the knottiest problems confronting individual doctors in their heretofore inherent rights to charge and collect fees as they pleased. The Tennessee Plan, in retrospect was an educational process by which the doctor bowed to some voluntary control of fees through action of his colleagues—a lull before the certain day of fees established outside the profession.

Only one of Nat Shofner's temperament and abilities could have led the profession along the path of prepaid health insurance leveling the bumps which might have made it a rough journey. It involved long hours of thought, much tact and diplomacy. Success was spelled in Nat's name.

R. H. K.

MAKE YOUR POLITICAL VIEWS HEARD, MD'S URGED

State and county medical society members can help answer a question often asked regarding Federal and State legislative processes: "What can one mere citizen do?"

The answer is that the so-called "mere citizen" can do a great deal. And so can physicians in Tennessee.

By writing his legislators in Washington and Nashville, the politically-aware physician can wield considerable political strength by making known his views on various legislation.

This is especially true today when Federal and State legislatures are considering numerous measures of great importance to the medical profession.

Letters to political figures often guide them in their decisions on legislative matters. They are very much aware that the *vox populi* is a most significant aspect of legislative procedures. Legislators *want* to hear from their constituents.

A list of "do's" and "don'ts" for prospective correspondents might include:

- Address your letter correctly. For example, in writing to a senator in Tennessee, (if the Assembly is in session), send it to: The Honorable "John Doe," Senate Chamber, State Capitol, Nashville. Send it to the House Chamber when writing to your state representative.

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Address your letter to a member of Congress as follows: The Honorable "John Doe," House Office Building, Washington, D.C. 20515. When writing to a senator, address it: Senate Office Building, Washington, D.C. 20510.

- Identify the legislation you're writing about. If possible, give the bill's *number*, however, a short title is adequate.

- For greater impact, be as *pertinent* and *brief* as possible. Concentrate on one topic. Write as often as you wish, but don't become a long-winded, burdensome "pen pal" on every conceivable subject. Your letter need not be typed, but must be legible.

Timing Important

- Views and comments are only *effective* if they arrive in time to do some good, preferably while the bill is in a formative stage or "in committee."

- Concentrate only on your own legislators. Usually, when they get letters from outside their own state or district, the letters are forwarded to the writers' own representatives.

- Your own views in a personal letter have far more value than your name on a petition. Form letters arriving in batches are usually recognized as such—and often get a form reply.

- Cite specific reasons for your position. (Example: "Bill X is financially impractical because it will mean a 15% increase in health care costs for the needy and elderly patients in Tennessee.")

- Be constructive. When giving a critique on a bill, offer something just as good—in your opinion—or offer something better. Occasionally, write a "well done" letter when your man's actions please you. Don't just write when you're angry or upset.

State Your Reasons

- Remember that a conscientious legislator is rarely intimidated by threats to campaign or vote against him. He would much rather know why you feel as you do about the bill. Threats usually generate only adverse reaction.

- Don't pretend to have vast influence. Legislators generally doubt views of the writer if they feel he is a self-appointed spokesman for a profession, or other groups.

- Be sure your man has all the facts before asking him to take a public stand. *Make sure that you, too, have as many facts as possible.* And take into account that major legislation usually has numerous provisions and your legislator may be voting on a bill as a whole, weighing the good and the bad.

JACK BALLENTINE
Executive Director



Editor,
Journal of Tenn. Med. Assoc.
Nashville, Tenn.

Dear Sir,

SGOT, HSMHA, OEA, UTBG, T-3, T-4, RMP, TMA, these plus many more initials in Nov. Journal. I can understand the Journal's desire to conserve space but M.D.'s are busy too and who has time to read an entire article only to find out that HCPOJ means "high caloric pure orange juice? Can't tests and bureaus be spelled out in full? I, for one, am lost in a wilderness of abbreviations.

I assume that the above letter was written by a physician. I am unable to identify the writer—it was written on plain paper, without an address, signed by initials only, the whole in such scribble that its transcription may be in error, here and there. The plain envelope carried a Knoxville postmark.

Abbreviations of bureaus and agencies represent a carry-over of the alphabetical soup bequeathed to "My Friends" by F.D.R.!

Psychologists studying reading habits find that repetition of long technical terms act as barricades to rapid and understandable reading—entanglements as it were. Visualize stumbling through *serum glutamic oxaloacetic transaminase* (SGOT) over and over. Abbreviations in medical literature are not new: PSP became acceptable for *phenolsulfonphthalein* in the years that followed its introduction in 1910, and BSP for *bromsulphalein* after 1924. We just have more of them today, thanks to the expansion of scientific knowledge.

The JOURNAL will continue to use abbreviations acceptable to medical dictionaries, assuming that doctors use dictionaries, spelling out the terms in full at least once in a given paper unless it has become part of common usage as PSP or SGOT.

Editor

IN MEMORIAM

Shofner, Nat S., Nashville. Died November 19, 1969, Age 74. Graduate of Vanderbilt University School of Medicine, 1916. Member of Nashville Academy of Medicine.

Taylor, Roy V., Lenior City. Died November 9, 1969, Age 64. Graduate of University of Tennessee School of Medicine, 1934. Member of Knoxville Academy of Medicine.

Elmore, Jack T., Halls. Died December 8, 1969, Age 48. Graduate of University of Arkansas School of Medicine, 1951. Member of Northwest Academy of Medicine.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES



New Members

The Journal takes the opportunity to welcome these new Tennessee Medical Assn. members.

MEMPHIS-SHELBY COUNTY MEDICAL SOCIETY

Jose Guma, M.D., Memphis
James E. Hancock, M.D., Memphis
Lawrence D. Seymour, M.D., Memphis

NASHVILLE ACADEMY OF MEDICINE

William H. Armes, Jr., M.D., Nashville
Dan B. Jones, M.D., Nashville
John P. Sutton, M.D., Nashville

Knoxville Academy of Medicine

The retiring President, Dr. Walter H. Benedict, delivered the main address at the Annual Meeting of the Knoxville Academy of Medicine on December 9. The following were installed as officers for 1970.

President:	Travis E. Morgan, M.D.
President-Elect:	John E. Kesterson, M.D.
Vice-President:	Richard L. Whittaker, M.D.
Secretary:	J. Marsh Frere, M.D.
Treasurer:	John R. Nelson, M.D.

The following were also elected to serve during 1970:

Executive Committee:	John W. Whittington, M.D.
	William O. Miller, M.D.
	Joseph W. Harb, M.D.

Delegates to Tenn. Med. Assn.:	John O. Kennedy, M.D.
	Ira S. Pierce, M.D.
	Perry M. Huggin, M.D.

Alt. Delegates to Tenn. Med. Assn.:	John H. Wolaver, M.D.
	Dan Beals, M.D.
	John A. Range, M.D.
	Robert P. Hornsby, M.D.
	Felix G. Line, M.D.
	Paul L. Jourdan, M.D.
	Joseph B. Moon, M.D.
	Lucian W. Trent, M.D.

Nominating Committee:	John H. Burkhart, M.D.
	Charles G. Peagler, M.D.
	Vernon H. Young, M.D.

Nashville Academy of Medicine

At the Annual Meeting of the Nashville Academy of Medicine on January 13, Dr. Robert Chalfant was installed as President for 1970. Dr. Robert McCracken was named President-Elect and Dr. Russell Birmingham was re-elected as Secretary-Treasurer. Drs. John Farringer and Thomas Haltom were named to three-year terms on the Academy's Board of Directors and the 1969 President, Dr. Louis Rosenfeld was named as Chairman of the Board.

The following physicians were elected to three-year terms as regular Delegates to the Tennessee Medical Association: Luther Beazley, M.D., B. F. Byrd, Jr., M.D., Frank Womack, M.D., Russell Birmingham, M.D., and Louis Rosenfeld, M.D. Drs. J. Sumpter Anderson, Robert Bomar, James Fleming, James W. Hays, Armistead Nelson, Richard Ownbey, Phillip Porch, Robert Roy, David Strayhorn, Jr., and Willard Tirrill, III were named as Alternate Delegates for one-year terms.

Memphis-Shelby County Medical Society

The following will serve as officers for the Memphis-Shelby County Medical Society for 1970: President—C. D. Hawkes, M.D., President-Elect—John D. Young, M.D., Vice President—Tinnin Martin, M.D., Secretary—John K. Duckworth, M.D., Treasurer—W. T. Satterfield, Jr., M.D.

Chattanooga-Hamilton County Medical Society

The officers for the Chattanooga-Hamilton County Medical Society are President—Robert G. Demos, M.D., President-Elect—Robert A. Waters, M.D., and Secretary—Durwood L. Kirk, M.D.

Along with Dr. Demos and Dr. Kirk, Drs. Robert A. Waters, David P. McCallie, Paul V. Nolan, Harry A. Stone, and David H. Turner will serve as Delegates to the TMA House.

AMA Nutrition Lectures

As has been the custom for some years, the AMA's Council on Foods and Nutrition is continuing this service to colleges which are unrelated to a medical school. Lectures on nutri-

tion act as a catalyst in interesting students in a life's work in health related professions. The visiting lecturer usually meets with interested students and faculty advisors.

On February 12, Dr. Harold Sandstead, Assistant Professor of Nutrition at Vanderbilt University will be *on campus* as the AMA Lecturer on Nutrition at the Austin Peay State University in Clarksville. On April 14, Dr. Richard Bozian of the University of Cincinnati College of Medicine, will visit the University of Chattanooga.

NATIONAL NEWS

The Month in Washington (From Washington Office, AMA)

A Senate subcommittee said that the number of medical malpractice suits probably will increase and "the situation threatens to become a national crisis." Sen. Abraham Ribicoff (D., La.), chairman of the Subcommittee on Executive Reorganization which has been reviewing the federal role in the nation's health care problems for nearly two years, reported eight conclusions after an extensive staff study. They are:

"1. The number of malpractice suits and claims is rising sharply in certain regions of the country. The size of judgments and settlements is increasing rapidly.

"2. Most malpractice suits are the direct result of injuries suffered by patients during medical treatment or surgery. The majority have proved justifiable. These suits are the indirect result of a deterioration of the traditional physician-patient relationship.

"3. The publicity given to higher malpractice judgments and settlements, based frequently on new legal precedents, is likely to trigger increasing litigation in other States. The situation threatens to become a national crisis.

"4. Already, higher judgments and settlements are having the following direct results:

- (a) Companies providing malpractice insurance are increasing the cost of coverage.
- (b) These costs—in the form of higher charges—are being passed on to

patients, their health care insurance companies, and federal health care programs.

"5. The rising number of malpractice suits is forcing physicians to practice what they call defensive medicine, viewing each patient as a potential malpractice claimant. Physicians often order excessive diagnostic procedures for patients, thereby increasing the cost of care. Moreover, they are declining to perform other procedures, which in themselves, may entail some risk of patient injury.

"6. At present, it appears that no one affected by the rise in malpractice suits and claims has been able to deal with this problem in a manner that promises to alleviate this situation.

"7. The lion's share of the total cost to the insurance companies of malpractice suits and claims goes to the legal community.

"8. There is a definite federal role in the malpractice problem."

Specialists listed as having "a greater potential exposure to malpractice suits" were orthopedic surgeons, general surgeons, neurosurgeons, anesthesiologists, obstetricians and gynecologists.

The 1150-page report included responses from staff inquiries to the American Medical Association, the American Hospital Association, lawyers and malpractice insurance companies.

If the situation continues to worsen, the report said, the federal government "may have to consider . . . a reinsurance pool to which it would contribute."

If the federal government moves into the malpractice area, the report said, it also should consider:

" . . . whether medical or surgical injury to a patient is a community responsibility and therefore compensable by the community.

" . . . whether it must provide legal aid to the poor to help them seek redress from personal medical or surgical injury.

" . . . whether it will insist upon creation of more effective regulatory devices over health professionals and health facilities to assure that those who are providing care are competent to do so."

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may overgrow; treat superinfection appropriately. Tetracycline may form a stable calcium complex in bone-forming tissue and may cause dental staining during tooth development (last half of pregnancy, neonatal period, infancy, early childhood).

Adverse Reactions: *Gastrointestinal*—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. *Skin*—maculopapular and erythematous rashes; exfoliative

dermatitis; photosensitivity; onycholysis, nail discoloration. *Kidney*—dose-related rise in BUN.

Hypersensitivity reactions—urticaria, angioneurotic edema, anaphylaxis.

Intracranial—bulging fontanels in young infants. *Teeth*—yellow-brown staining;

enamel hypoplasia. *Blood*—anemia, thrombocytopenic purpura, neutropenia, eosinophilia. *Liver*—cholestasis at high dosage.

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A special task force recommended that the federal government experiment in different ways of paying physicians under medicare and medicaid. In the first of a series of reports on medicaid, the task force—appointed by Health, Education and Welfare Secretary Robert H. Finch last July—said: "HEW should actively program experiments for incentive reimbursement under medicare and medicaid, with new emphasis on experiments in payment methods for physicians as the key generators of health services. In addition to experiments in institutional reimbursement, other experiments could emphasize compensation to groups of practitioners using modified approaches to capitation with built-in controls on quality and costs."

The report said that states also should be made aware of options now available under present laws and regulations in addition to the individual fee-for-service basis for payments to physicians. The report listed "contract payments with quality controls, case average methods, and fee for time."

The task force recommended that medicaid funds be used to finance group practice, neighborhood health clinics and home health care programs, particularly in ghettos and other low-income areas. The recommendation was the core of a goal "to effect changes and improvements in the health care delivery system" of the nation.

"Bringing about needed major changes in the organization and delivery of health services is a long-range objective, requiring national commitment and establishment of national policy and priorities," the task force said in the first of a series of reports.

"For the short-range, we are recommending certain actions which could bring about some improvements and which are consistent with long-range objectives."

For the short-range, it was recommended that five per cent of federal medicaid funds be earmarked for state "development and improvement of health care services and resources." Consideration also should be given to such use of medicare funds, the report said.

The federal government was urged to take a more positive leadership role in the medicare program by first improving its

own administrative machinery and then getting the states to make their management functions more efficient.

Other recommendations of the task force included:

—Deny federal medicaid funds to chiropractors and naturopaths.

—Require uniform provisions and unified state standard-setting, certification, and consultation functions with respect to providers of service under both medicaid and medicare.

—Establish eligibility for medicaid benefits by permitting an applicant to fill out a simple declaration form.


—Require "profiles at the state level of vendors and recipients of service, and criteria against which to screen claims to identify patterns which appear to deviate from desirable and/or usual behavior."



The American Medical Association urged Congress to give top priority to appropriations that will help increase the number of physicians. Testifying before a Senate appropriations subcommittee, Dr. C. H. William Ruhe, director of the AMA's Division of Medical Education, said that "medical education should be supported financially as fully as possible to meet the pressing need which exists today for an increased number of physicians."

"We believe," he said, "that in any appropriation priorities established for all government programs, those which affect health care should be given primary consideration. Further, because of the special need . . . for more physicians, we urge that appropriations relevant to the production of physicians be given first priority."

Concerning decreases in the Administration budget in support of research and training grants, fellowships, library grants and research facility construction, the AMA spokesman said: "It is difficult to estimate the effect these reductions will have upon efforts to increase physician production, but there is concern among many medical educators that the growth in medical school enrollments will be inhibited. We believe that this effect should be watched closely and corrective measures instituted promptly if physician production is impaired."



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MEDICAL NEWS IN TENNESSEE

Southeastern Regional Medical Library Program to begin Services

On January 1, 1970, the Southeastern Regional Medical Library Program inaugurated services to health professionals and institutions in the states of Alabama, Florida, Georgia, Mississippi, South Carolina, Tennessee, and the Commonwealth of Puerto Rico.

The 12 larger medical libraries in the region have formed a consortium to develop the program. Members are termed Resource Libraries and include the University of Alabama Medical Center Library, Birmingham; the University of Florida, J. Hillis Miller Health Center Library, Gainesville; the University of Miami School of Medicine Library, Miami, Fla.; the University of South Florida School of Medicine Library, Tampa; the Emory University School of Medicine, A. W. Calhoun Medical Library, Atlanta; the Medical College of Georgia Library, Augusta; the University of Mississippi Medical Center, Rowland Medical Library, Jackson; the University of Puerto Rico Medical Sciences Campus Library, San Juan; the Medical University of South Carolina Library, Charleston; the Meharry Medical College, Meharry Alumni Library, Nashville, Tennessee; the University of Tennessee Medical Units, Mooney Memorial Library, Memphis; and the Vanderbilt University School of Medicine Library, Nashville.

The A. W. Calhoun Medical Library, Emory University School of Medicine, is serving as administrative headquarters for the Southeastern Regional Medical Library Program. Mrs. Miriam H. Libbey, librarian of the A. W. Calhoun Medical Library, has been chosen by an advisory council to serve as chairman of a seven-member executive committee for the program.

The Medical Library Assistance Act of 1965 of the U.S. Congress paved the way for the Regional Medical Library Program which is designed to expand and improve medical library service and facilities for the health sciences community. It will coordinate programs in existing institutions,

creating a nationwide biomedical communications network with the National Library of Medicine as center. Some 11 regional medical libraries are being designated, including the Southeastern Regional Medical Library.

Distribution of regional services will be a cooperative endeavor, designed not to supplant but to supplement those services already being offered by member libraries. These services are available (1) to the public and private institutions with programs of health professional education, service, or research, and (2) to individuals engaged in these or related fields who lack access to libraries through which to obtain services.

Initial plans call for expanded interlibrary loan service, including free photocopies in lieu of original material. A union list of serials holdings for the consortium members will expedite this service.

Bibliographies can be formulated from computer search through the National Library of Medicine's Medical Literature Analysis and Retrieval System (MEDLARS). Continuing education programs will feature a MEDLARS workshop for librarians. During the year similar instruction will be given user groups. Through a newsletter and announcements, close communication will be maintained for all health science libraries in the region.

75th Anniversary Meeting of the Middle Tennessee Medical Association

The 75th Anniversary Meeting of the Middle Tennessee Medical Association was held at the Stone's River Country Club in Murfreesboro on November 20. This Association, the second oldest medical society west of the Allegheny Mountains, is composed of physicians from 16 counties of the Middle Tennessee Area.

Highlighting the anniversary meeting was a visit and address by Senator Howard Baker, Jr. Dr. Nat Winston, past Commissioner for the State Mental Health Department, and presently President of the American Psychiatric Hospitals, Inc., was the guest speaker for the evening.

Dr. S. C. Garrison, Murfreesboro, spoke on the evaluation and care of lung problems in the community hospital and Dr. Paul

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Hutcheson, Professor at Middle Tennessee University, spoke on the use of "Computers in the Practice of Medicine." Dr. Thomas G. Pennington, Nashville, is the current President of the Association and Dr. Olin O. Williams, Murfreesboro, is the President-Elect.

The Registered Nurse Private Duty Fees

Private duty registered nurse fees are now established by the Local districts of the Tennessee Nurses' Association. The change from one statewide fee was made at the 1968 TNA Convention. The Private Duty Section of TNA established a \$25.00 per eight hours minimum fee at that time. Current fees for RNs doing private duty nursing are \$30.00 per eight hours in Memphis, Chattanooga and the Morristown area. RNs in Knoxville and Nashville areas will move to a fee of \$30.00 per eight hours on January 1, 1970.

According to Mrs. Rebecca Clark Culpepper, TNA Executive Director, the TNA Headquarters sends notification of fee changes to directors of nursing and health care administrators in those areas affected, approximately fifteen days before the change in rates. News releases are also sent to area papers in advance of the fee change.

Additional information on rates for private duty registered nurses may be obtained by writing or calling TNA Headquarters, 1720 West End Building, Room 400, Nashville, Tennessee 37203—Area 615 242-5612.

Vanderbilt University Medical School

Instead of buying Christmas gifts for their customers, the members of the Middle Tennessee Automotive Wholesaler's Association—local automobile parts dealers—give an annual contribution to the Newborn Nursery at Vanderbilt Hospital. Said John Allman, general manager of the NAPA Nashville Warehouse, "Other automobile parts jobbers throughout the country have charity projects, but our organization in Middle Tennessee originated the Newborn Nursery project." Begun in 1965, the Christmas gift has been of continuing benefit to the babies of Middle Tennessee who are born in need of help that only Vanderbilt

Hospital's Newborn Nursery can give. It regularly provides specialized care for premature and newborn infants from the Middle Tennessee area in which the Association members carry on business. Many babies are brought to Vanderbilt from other hospitals in the Central South where such indispensable facilities are not available. Of the 1242 babies admitted to the Newborn Nursery between January 1, 1969, and December 15, 1969, there were 222 critically ill babies brought in from twenty-six Middle Tennessee counties.

PERSONAL NEWS

Dr. Arnold M. Meirowsky, Nashville, was named Physician-of-the-Year by the Middle Tennessee Medical Association at the 75th Anniversary observance, held on November 20 in Murfreesboro. **Dr. Thomas G. Pennington**, President of MTMA, made the presentation.

Dr. Joseph H. Miller, Memphis, recently made a slide presentation on Vietnam to the Memphis Rotary Club.

Dr. Robert S. Sanders, Director of Rutherford and Cannon County Health Departments, was elected Vice-President of the Middle Tennessee Area of the Tennessee Public Health Association at the Annual Meeting recently held in Nashville.

Dr. James Noonan, Nashville, was a guest speaker at a November meeting of the Nashville Rotary Club. Dr. Noonan spoke on the etiology, diagnosis, and treatment of heart disease.

Dr. Robert N. Buchanan, Nashville, was re-elected as President of the Belle Meade Country Club.

Dr. H. A. Morgan, Director of the Marshall-Bedford County Health District, received a thirty-year Service Award at the Annual Meeting of the Tennessee Public Health Association.

Dr. David H. McConnell, Newport, recently spoke to the Newport Kiwanis Club on the Kiwanis International's Major Emphasis Program for 1969-70, "Operation Drug Alert." In his talk, Dr. McConnell pointed out the importance of alerting and educating the public to the dangers of drug abuse.

Dr. Jean Hawkes, Memphis, was guest speaker at the organizational meeting of the Johnson-Madison County Lay Diabetic Society.

Drs. Robert W. Quinn, Rudolph Kampmeier, K. M. Kressenberg, and Eugene Fowinkle were panel participants at the Tennessee Public Health Conference of Public Health Workers.

Drs. James Appleton, Sidney Bicknell and Robert Bateman have joined the staff of the Jackson Clinic. Drs. Appleton and Bicknell will practice Urology and Dr. Bateman is associated

Notice To All Members!

- ★ Your Memberships in the Tennessee Medical Association and American Medical Association, including subscriptions to *The Tennessee Medical Journal* and *The Journal of the AMA* (with other AMA publications), expired on December 31. Here's how to renew them:
- ★ Mail your dues immediately to the SECRETARY of YOUR COUNTY MEDICAL SOCIETY.
- ★ TMA dues are \$80.00. AMA membership dues are \$70.00. If you don't know the amount of your County Medical Society dues, check with your local Secretary.
- ★ Many members probably will want to send one check to cover local, state, and national dues. **Make Check Payable To Your County Medical Society.**
- ★ Your local Secretary or Treasurer will forward state and national dues for you and other members to the Nashville Office of the TMA. That office will transmit AMA dues to Chicago.
- ★ Remember: As a part of the privileges and services offered to all members of TMA, you will receive a year's subscription to *The Tennessee Medical Journal* without cost. Dues-paying members of the AMA will receive a year's subscription to *The Journal of the AMA*, *Today's Health*, *American Medical News*, and an *AMA Specialty Journal* of choice.
- ★ The member who becomes eligible for exemption from dues, and wishes to take advantage of exemption, should make his wishes known to the secretary of his County Medical Society. After exemption has once been established, the member is carried over from year to year, unless the status changes and notification is received from your County Medical Society.

with the clinic in the practice of Orthopedic Surgery.

Dr. C. Robert Clark, Chattanooga, served as Chairman of a course on "Emergency Care and Transportation of the Sick and Injured," held November 27-30 at the Read House in Chattanooga.

Dr. John R. Sisk, Harriman, has been inducted into Fellowship of the American College of Surgeons.

Dr. Benjamin F. Byrd, Jr., Nashville, has been elected as Delegate Director of the American Cancer Society. As Delegate Director, Dr. Byrd represents the Tennessee Division of ACS on the National Board of Directors.

Dr. S. B. Pinto, Smyrna, was the guest speaker at the Smyrna Lions Club October meeting.

Dr. E. C. Tolbert, Murfreesboro, gave a talk on Mental Health to the Murfreesboro Chapter of the National Secretaries Association, held on October 28.

Dr. Harvey H. Barham, Bolivar, has been elected to the active membership to the American Academy of General Practice.

Dr. Edward Cutter, Director of the Health Services for Montgomery, Houston, Cheatham, and Stewart counties, was guest speaker at a meeting of the Clarksville Branch of the American Association of University Women. Dr. Cutter spoke on "Air Pollution" and the state Medicaid program.

Dr. Bernard M. Zussman, Memphis, addressed the American Association for Clinical Immunology and Allergy at its Annual Meeting in Oklahoma City. Dr. Zussman presented a paper on "Tobacco Sensitivity and the Allergic Patient."

Dr. George Hester, Murfreesboro, recently joined the staff of the Murfreesboro Medical Clinic as a specialist in Internal Medicine.

Dr. J. M. Higgason was named Chief of the Medical Staff at the Chattanooga Memorial Hospital. Dr. Higgason succeeds **Dr. Dewitt James**, who had held the position since 1967.

Dr. Robert T. Cochran, Jr. announces the opening of his office for the practice of Neurology and Internal Medicine in Nashville.

Dr. R. H. Kampmeier, Nashville, gave the first John Archinard Memorial Lecture at the Ochsner Foundation, New Orleans in October, entitled "One Life—'A Film Shown Backward.'"

ANNOUNCEMENTS

Calendar of Meetings, 1970

State

April 9-11 Tennessee Medical Association, Sheraton-Peabody Hotel, Memphis

National

Jan. 30-Feb. 1 Southern Radiological Confer-

Feb. 8-9

Feb. 14-18

Feb. 25-March 1

March 8-10

March 20-21

April 9-10

April 10-12

April 12-17

April 12-18

April 13-16

April 27-May 2

May 4-5

ence, Grand Hotel, Point Clear, Ala.

Congress on Medical Education (66th Annual), Palmer House, Chicago

American Academy of Allergy, Jung Hotel, New Orleans

American College of Cardiology, Rivergate Hotel, New Orleans

Atlanta Graduate Medical Assembly, Marriott Motor Hotel, Atlanta

AMA National Conference on Socio-Economics of Health Care, (Fourth) Palmer House, Chicago

National Conference on Rural Health (23rd), Pfister Hotel & Tower, Milwaukee

American Society of Internal Medicine, Warwick Hotel, Philadelphia

American College of Physicians, Bellevue Stratford Hotel, Philadelphia

American College of Obstetricians and Gynecologists, Americana Hotel, New York

American Academy of Pediatrics, The Washington Hilton, Washington, D.C.

American Academy of Neurology, Americana Hotel, Miami Beach, Fla.

American Cancer Society's 12th Annual Cancer Seminar, Frontier Hotel, Las Vegas, Nevada

AAP Reaffirms Support For Sex Education Programs

The American Academy of Pediatrics has urged pediatricians to support family life and sex education programs.

In a statement appearing as a supplement to the current (Dec. 1) *AAP Newsletter*, the Academy's Committee on Youth emphasizes that pediatricians must make every effort to work through parents, support public school officials, and join in sponsoring and participating in public meetings which discuss the content and goals of such education programs.

"Pediatricians, with their position of acceptance and trust in the community, have an unusual opportunity and responsibility to add their voices in support and direction of family life and sex education programs," the statement points out.

The Academy's Committee on Youth further indicates that an examination of the current scene as it affects young people, parents, families and the community at large, "leaves little doubt

about the need for responsible, relevant, and effective educational programs in family life."

"The American Academy of Pediatrics, with its traditional commitment to preventive health measures facilitating optimum growth and the development of children, recognizes and encourages this important health effort," the AAP statement points out.

The Academy further emphasizes that the increasing controversy surrounding the introduction of family life and sex education programs in public schools now poses a serious threat to this essential segment of the health education of children and young people.

"Responsible programs directed toward improving knowledge about sexual development, which improve the understanding between youth and their peers and between youth and adults, are being subjected to strong opposition stemming from a variety of sources," the statement warns.

The statement refers to previous AAP pronouncements which have expressed a firm commitment on the part of the Academy to programs in public schools, churches, and other community institutions which contribute to "a vigorous and healthy social climate in which family life can flourish, and which make for mature sexual behavior in each individual."

Doctors-Nurses Joint Meeting Scheduled

The annual combined meeting for doctors and nurses sponsored by the American College of Surgeons will be held in Washington, D.C. March 16-18. The meeting, at the Sheraton Park Hotel, is open to all doctors of medicine and registered nurses.

The doctors' program will include sessions in general surgery and the specialties of gynecology-obstetrics, neurosurgery, ophthalmic surgery, orthopedic surgery, otolaryngology, plastic surgery and urology. Topics include renal complications of surgery, advances in chemotherapy, current status of surgery in sinus disease, 1970 management of neurogenic bladder, management of combat facial wounds, infertility in the female, glaucoma—when and how to operate, cup arthroplasty of the hip and long-term results of lumbar disc surgery.

Nurses' sessions will focus on management of thoracic surgery patients, status of OR technicians and medical assistance, chromosomes and malignancies, the surgeon looks at the operating room environment, and papers on arthritis and electricity.

In addition to new medical films for both pro-

grams, some 35 industrial exhibits featuring new materials and equipment will be on display.

Cardiovascular Scholarships Available

Applications are now being accepted for the E. V. Allen Memorial Scholarships, open to junior and senior medical students attending medical schools in the United States or Canada. The scholarship provides three months of cardiovascular study at the Mayo Clinic, Rochester, as well as \$1,000 award.

Deadline for applications is April 1, 1970. Applicants will be notified by May 1, 1970.

Brochures may be obtained by writing to Minnesota Heart Association, 4701 West 77th Street, Edina, Minnesota 55435

Refresher Courses for General Practitioners

A four-day refresher conference for general practitioners of medicine will be held at the University of Iowa Health Center Tuesday through Friday, February 10-13.

In addition to the discussion of 49 medical subjects of interest to general practitioners, the conference will offer several innovations including clinical movies during luncheons and optional "lunch with the experts."

Each participant will have the opportunity to offer critiques of the speakers and advance-registrants will have the opportunity to take a self-scoring pre- and post-conference quiz to evaluate the amount of individual learning at the conference. Registrants can also get some additional practice in "test-taking" at the conference if they are preparing to take the Family Practice Board examinations.

Sessions on Tuesday will be devoted to a Symposium on Emergency Care.

Conference registration forms can be obtained by writing: Director, Office of Medical Education, The University of Iowa, 245 Medical Research Center, Iowa City, Iowa 52240.

February 1st Deadline to Submit Regional Medical Program Suggestions

Readers recently received a letter containing recommendations from the Heart Study Group of the Mid-South Regional Medical Program in Nashville. Physicians with suggestions relative to the recommendations for possible RMP projects are reminded of the February 1, 1970 deadline. Ideas should be transmitted to an RMP Area Coordinator or RMP Headquarters in Nashville.



T M A

THE VIEWING BOX

Liability for Use of Paramedical Personnel*

RICHARD P. BERGEN,† Chicago, Illinois

The rising demand for medical service among the civilian population and the inexorable need for medical care in the armed forces confront the nation with a steadily increasing shortage of medical manpower. Even the most visionary expansion of medical schools cannot fully supply the need for medical services in the foreseeable future.

This manpower shortage has given rise to a strong movement for increased use of paramedical personnel to supply the needed services. The argument is made that the only way in which the available number of physicians can meet the increasing medical demands of the public is to have more help.

Spectrum of Activities

There is increasing recognition of the concept that the practice of medicine encompasses a broad spectrum of activities ranging from those which are routine and repetitive to those which require the highest degree of training, skill and judgment. With at least some justification, it is asserted that it is wasteful and inefficient to require the long years of college, medical school, internship and residency to qualify a person to perform routine duties that can be learned to perfection in a few months or years of specialized technical training. Already, many routine medical functions are generally delegated to registered nurses, laboratory technologists, X-ray technologists and even to office assistants. Indeed, many rather complicated and critical medical duties, including the administration of anesthesia, are currently delegated quite

frequently to registered or professional nurses.

There is no doubt about it, paramedical personnel without the benefit of medical school education can be trained to perform a limited number of rather complicated procedures which are a part of the practice of medicine. They can be trained to perform these procedures as well as or better than the average physician.

The difficulty arises from the fact that the health and well-being of a patient is not something that can be divided into nice neat units. For a particular patient, even the most routine procedure may sometimes be of critical importance for his life. It may cause a crisis which requires all the training, skill and judgment of the physician to save the patient. In these situations, the highly trained technician on his own, without the broad medical background of the physician, is lost. Or rather, the patient is lost.

MD Supervision

Accordingly, for the protection of the patient, medical functions can be delegated to paramedical personnel only if they are performed under the direction and supervision of a physician. Obviously, some procedures are too complicated, too delicate or too critical to be performed by anyone but a physician. The important factor is the safety of the patient. If a physician knows that a paramedical assistant is well qualified to perform the particular procedure and if it is performed under his direction and supervision which is sufficiently close and detailed to prevent harm to the patient in the event of untoward developments, he may properly delegate even highly complicated and delicate procedures to the paramedical assistant. That, at least, is the logical analysis of the problem.

Physicians, however, are concerned about possible increased liability for damages

*Presented at the Legal Conference for Medical Society Representatives, sponsored by the Law Division, American Medical Association, October 4, 1968.

†Director, Legal Research Department, American Medical Association.

which may arise from extended use of paramedical personnel. The quick legal answer is that a physician who uses more paramedical assistants in his practice and who uses them for more hazardous procedures will necessarily increase his risk of liability. He will also increase the number of patients to whom he can give medical care and the annual volume of his professional fees. If he is careful in selecting and training or testing the personnel and if he is lucky, he may not experience any increased incidence of damage awards.

But physicians want more specific legal advice. What exactly does the law provide concerning the liability of a physician for using a new type of paramedical assistant to perform functions previously performed only by physicians? For example, if a general surgeon trains a high school graduate who is not a registered nurse to assist him in surgery on approximately the same level of performance that might be permitted for a first-year intern in a teaching hospital, what is the outcome when a patient is injured during surgery under these circumstances?

Let us examine the law as it stands today and see if it has an answer. First, it is well established that an employer physician is liable for an injury caused by the negligence of his employee, even if the employee is another physician. This liability, of course, extends to all subordinate levels of employees as well. A physician may also be liable for the results of the negligence of a hospital employee, under the "borrowed servant" doctrine, if the employee is assigned to his special service—not merely performing the routine duties of the hospital employment. The physician is insulated from liability only if he delegates the performance of the medical function to an independent contractor. In practical effect, this means delegation to another physician. To establish paramedical personnel as independent contractors, it would be necessary to grant them rights as independent practitioners, free to render care to patients on their own and not subject to direction and control by a physician. The podiatrist is an example of paramedical personnel elevated to the status of an independent practitioner.

Intolerable Fragmentation

A physician can delegate care of his patient, within the scope of the authorized practice of Podiatry, to a podiatrist not in his employ and avoid all vicarious liability for any injury caused by the negligence of the podiatrist. Technically, it would be possible to establish such independent practitioner status for other classes of paramedical personnel, such as nurses, X-ray technologists, physical therapists and the like. This would allow physicians to avoid some vicarious liability, but would result in an intolerable fragmentation of medical practice. It would also deprive the physician of his virtually complete control over patient care. I think it is better for the physician to accept the burden of liability for his paramedical assistants.

Let us examine the record of court decisions relating to the vicarious liability of physicians for acts of their own employees or of hospital employees. In this broad area of law, there are innumerable decisions. Most of them relate to employees who have some officially recognized status under the law, such as licensed physicians, residents, interns, registered nurses or certified technologists. Only a very few cases deal with the physician's liability for acts of employees who lack this official status. We might call this class of employees irregular paramedical assistants.

Cases involving vicarious liability of physicians for nonphysician employees can be traced back to as early a date as 1832. All paramedical personnel in the early days were, of course, irregular assistants. The first Nursing Practice Acts were not enacted until 1903 and licensure or certification of other classes of paramedical personnel did not appear until a much later date. Formal training of paramedical personnel, of course, started much earlier. The first school of nursing was established in 1873 in Bellevue Hospital in New York City. Hospital schools of nursing were widespread before official registration of nurses came into effect.

"Irregular Assistant"

In the 65 years since the first Nursing Practice Acts established the first officially recognized class of paramedical personnel,

I have found only 22 reported appellate court decisions involving the liability of physicians for the conduct of "irregular" paramedical personnel—that is personnel who are not licensed, registered or certified under state law. I won't even try to guess how many times "irregular" paramedical personnel have been used to help physicians in the practice of medicine in that period.

In one of the earliest of these decisions in the *Mullins* case in Georgia in 1920, a physician permitted his Negro servant to give treatments to his patients during his absence. I think we can assume she was not a registered nurse, but no point was made of her lack of registration. The physician fought unsuccessfully to avoid liability on the ground that the servant acted independently during his absence. In what may have been dicta, the court stated a principle which still makes good sense. It said that a physician who tells a patient that an office assistant will give treatments in his absence is, in effect, assuring the patient that the prescribed treatments are of a character that do not require the personal service of a physician and that the patient may safely receive the treatment from the office assistant.

Not until 1966, as far as I can determine, did any court specifically hold that lack of official status on the part of paramedical personnel may, itself, be proof of negligence. The decision of the Washington Supreme Court in the *Barber* case appears to be a hasty, ill considered and illogical ruling on the part of the court. The incident which gave rise to the suit was relatively inconsequential. A licensed practical nurse in the physician's office was giving a two-year-old boy a polio booster shot. The boy suddenly moved and the needle was broken off in his buttock. Several attempts were promptly made to find and remove the needle by surgery, but without success. Nine months later the needle was located and removed.

The court based its decision on a provision of the State's Nursing Practice Act that only a licensed professional nurse can give inoculations. As a licensed practical nurse, the office assistant acted unlawfully in giving the polio shot. This, the court said, permits an inference that she lacked the knowledge and skill of a licensed profes-

sional nurse in giving the shot. One may hope, at least, that the office assistant might be given the opportunity to rebut this inference.

Lack of License

The court did recognize at least that lack of a license was not equated with liability. It conceded that there could be no recovery of damages unless it is proved that lack of a license was the proximate cause of injury to the patient. In this regard, the court authorized consideration of the fact that the child moved suddenly when stuck with the needle, and the issue of whether the office assistant was negligent in failing to anticipate and guard against such movement. Thus, after circuitous reasoning, the case *may* be decided at a new trial on the question of whether the office assistant was in fact negligent, regardless of her license.

The court was led, perhaps, into logical pitfalls by the fact that the Nursing Practice Act is itself illogical. Although it provides that only a licensed nurse may administer medications treatment, tests and inoculations, it also provides that only a licensed professional nurse may delegate these functions to other persons engaged in nursing. Does this mean that a professional nurse can delegate the giving of inoculations to a practical nurse or student nurse, but a licensed physician can't make such delegation? Or does it mean that the professional nurse can make the delegation, but it is unlawful for the practical nurse to perform the delegated act? Perhaps the Legislature wasn't thinking very clearly the day it passed that law.

Possession of a license or certificate may be evidence that the possessor has acquired the prescribed training, but as the legal record clearly shows, it is no guarantee against negligence. Its real value is that it allows the physician employer to presume that the licensed employee is competent in his field, at least until he or she is found to be actually incompetent.

If a physician knowingly employs an incompetent paramedical assistant, he is himself, negligent and liable for injuries to patients proximately caused thereby. Apart from the presumption in favor of the licensed or registered or certified assistant, the physician's responsibility in selecting

and retaining employees is the same—to see to it that his patients are in safe hands when receiving care from paramedical personnel.

Standards of Care

A wise physician does not allow a young high school graduate, with two years' experience as a nurse's aide, to remove sutures, prescribe medication and inject penicillin in the physician's absence, as in the *Delaney* case. He doesn't allow an untrained hospital orderly to catheterize a post-operative patient, as in the *White* case, or permit a layman to perform amputations, as in the *Paul* case, or to administer a quack cancer cure, as in the *Hendrickson* case.

If something goes wrong and negligence of the "irregular" assistant causes injury to a patient, the physician employer, of course, will be liable. This was the result of a mistaken injection of adrenalin in the *Schultz* case in Minnesota, and of dispensing the wrong medication, as in the *Acherman* case in Wisconsin. That one, incidentally, involved a veterinary assisted by his son. Where a class of paramedical personnel has been legally recognized, the "irregular" assistant will probably be held to the same standard of care as his or her license or certified counterpart. This is the message I read between the lines in most of these decisions. Indeed, if paramedical personnel are assigned to duties ordinarily performed only by a licensed physician, such as surgery in the *Andrews* case, or prescribing drugs, as in the *Fulton Hospital* case, they are apt to be held to the same standard of care as a physician.

There are a few cases which may have an indirect bearing on the question of liability. Although the *Andrews* and *Forrest* cases hold that lack of a license is not proof of negligence, in itself, some courts may follow the contrary lead of the Washington court. Accordingly, decisions in criminal or license proceedings may be important. In California, the *Magit* case and the *O'Reilly* case held that competent but unlicensed foreign physicians can't lawfully administer anesthesia, assist in surgery or engage in diagnosis and treatment of patients; and the *Whittaker* case holds, thus far, that a skilled former medical corpsman cannot lawfully be used as an assistant in brain surgery to

cut the necessary openings in the patient's skull. California presents a particular problem because it has a higher number of official paramedical classifications than any other state and has a strict Medical Practice Act. California is also noteworthy as the only state with a decision, in the *Glesby* case, that professional liability insurance does not cover acts of "irregular" paramedical employees which are in violation of the law. I believe, however, that the express exclusion of "illegal acts" on which this decision was based has been eliminated from most insurance policies now in force.

Increased Risks

To get back to the specific question of the risks of liability in the use of new kinds of paramedical personnel to assist physicians in new ways, it seems inevitable that such medical innovations must necessarily increase risks. The risk, of course, is lessened if the assistant is thoroughly trained and carefully supervised. It is reduced still further if a formal training program is established and effectively operated by a medical school or a teaching hospital. It is minimized further if appropriate medical and specialty societies establish standards for training and a program for private certification of students who satisfactorily complete the approved training. Official state certification would add only a little protection. Compulsory state licensing would not further reduce the risk for the employing MD.

To test the legality of physician use of a new unofficial class of paramedical personnel, an injection suit appears to be the most practical procedure. This route was followed in *Chalmers-Francis* in California and *Frank* in Kentucky. These may not have been friendly test cases, but they do show a method for obtaining a legal ruling without running the risk of a damage suit or a license revocation proceeding.

In some states, added protection may also be obtained by amending the Medical Practice Act. In a few instances, these laws grant general authority to physicians to use competent assistants substantially at the physician's discretion. One of the best provisions along this line is that in the Oklahoma Act, as follows:

Nothing in this article shall be so construed

as to prohibit service rendered by a physician's trained assistant, a registered nurse or a licensed practical nurse if such service be rendered under the direct supervision and control of a licensed physician.

Statutory Amendment

Where strict compulsory licensing laws are unreasonably impeding the effective use of new paramedical personnel, a statutory amendment along this line might be advisable. This might be especially helpful in problem areas like California.

A final suggestion might be appropriate. The history of professional nursing has been one of steadily expanding paramedical function. Without any substantial opposition, nurses are doing today procedures which would have been shocking to the medical profession and the public 10 years ago. Without any change in the Nursing Practice Act, in most instances, I believe

that delegation to nurses under physician supervision can be made of virtually any medical procedure that does not, on a scientifically determined basis, require the personal knowledge, skill and judgment of a physician. This has already been accomplished with respect to nurse anesthetists without the benefit of any special statute. I believe it can be done gradually in relation to many other important medical functions, provided that the competence of the nurses for the assigned duty is assured by comprehensive special training.

This sort of development might also meet the demand among nurses for greater status recognition and more adequate compensation. It might also forestall a possible demand that professional nurses be recognized as independent health-care practitioners.

—Reprinted from *Massachusetts Physician*, November 1969.

* * *

NOTICE

(From the Federal Drug Administration)

This is to bring to the attention of the TMA membership, an urgent health hazard involving 49 types of sterile urethral catheter trays and kits produced by C. R. Bard, Inc., Murray Hill, New Jersey. All of these trays contain a packet of cleansing solution or "Detergicide." This "detergicide," also called "prep solution," "cleansing solution," or "antiseptic towlette," has been found to contain bacteria of pseudomonas species, commonly known as EO-1, a pathogenic organism which may produce severe genito-urinary infections.

C. R. Bard, Inc., undertook a voluntary recall in September of the contaminated trays from its distributors and from hospitals in the United States and Canada. FDA has determined that the recall was not effective due in part to lack of cooperation by several large distributors who declined to participate.

FDA attempted to warn nursing homes and medical profession of the dangers involved in the use of these trays by issuing a press release on October 20, 1969.

FDA checks on dissemination of the warnings have revealed, however, that the majority of nursing and convalescent homes are still unaware of the recall or the health hazards of the catheter trays containing the

contaminated detergent. We have found them still in use.

Within the last few days a marked increase in severe genito-urinary infections associated with the use of the catheter trays containing the contaminated detergent has been reported by hospital authorities.

Additional investigations by the FDA have also disclosed non-sterility of some of the lubricant jelly packs in the Bard trays. In view of the gravity of this situation and the patient-hazard involved, your assistance is needed in alerting all physicians associated with hospitals, urologic clinics, nursing and convalescent homes, to take immediate steps to check all stocks of sterile urethral catheter trays or kits from C. R. Bard, Inc., and arrange for prompt return to the supplier of any existing stocks bearing any of the re-order or item numbers listed below:

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7602	8365-16	8504-16	8810
7602P	8365-18	8504-18	8816
7604	8400	8505-16	8816-A
7610	8401	8505-18	8818
8145	8464-16	8505A-16	8818A
8214	8464-18	8505A-18	8819
8216	8464-D-16	8554	4200
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Manuscripts submitted for consideration for publication in the JOURNAL OF THE TENNESSEE MEDICAL ASSOCIATION should be addressed to the Editor, Dr. R. H. Kampmeier, Vanderbilt University Hospital, Nashville, Tennessee 37203.

Manuscripts must be typewritten on one side of letter-weight paper. Either double or triple spacing and wide margins must be provided to facilitate editing which will be legible for the printer.

Bibliographic references should not exceed twenty in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to the style used in the American Medical Association publications, as—Alais, F. G.: What Is Known About it, J. Tennessee M. A., 35:132, 1950.

Illustrations must be mounted on white cardboard and be numbered. The editor will determine the number, if any, of illustrations to be used. Additional illustrations will be charged to the author. The author's name should appear on the back of each illustration.

If reprints are desired, the requested number should be indicated in the letter accompanying the manuscript. The author will be billed by the publisher.

The diagnosis of injury to these structures and their management is essential to the ultimate outcome. The author presents an excellent review of these points.

Injuries of the Colon and Rectum Diagnosis — Treatment*

JOSEPH J. DODDS, M.D., Chattanooga, Tenn.

Introduction

Injuries to the colon and rectum are relatively uncommon, however, they do occur with sufficient frequency that every surgeon must be familiar with their diagnosis and management. These injuries may be produced by penetrating or non-penetrating forces and may be confined only to the bowel, itself, or may involve the blood supply to the bowel, or both. Broadly speaking they can be classified as follows:

- A. Perforations Due to:
 - 1. Stab wounds
 - 2. Gunshot wounds
 - 3. Miscellaneous wounds
- B. Lacerations, Abrasions and Contusions Produced by:
 - 1. Ingested and inserted foreign bodies
 - 2. Blunt abdominal trauma

Tables 1 and 2 are composite representa-

tion of several recently reported series dealing with these injuries. Perforation is by far the most common variety of injury which occurs, and most of these are produced by knives or guns. The miscellaneous category includes, primarily, the unique and relatively rare forms of traumatic perforations, such as those produced by enema tips, rectal thermometers, ingested foreign bodies, penetration by bone fragments, as well as the group of iatrogenic perforations produced by sigmoidoscopes, needles, trocars, excessive electrocautery, surgical errors and during the administration of barium enemas.¹⁻¹⁶

Lacerations, abrasions and contusions are relatively infrequent injuries. Injuries of this nature have been produced by ingested and inserted foreign bodies and blunt abdominal trauma, such as may result from

Recently Reported Cases of Colonic & Rectal Injury

Investigator	1	2	3	4	5	6	7	8	9	10
Perforations										
Stab Wounds				18	34				105	
Gunshots	26				68				207	
Misc. Wounds					6		1	10	2	
Lac. Cont. & Abr.					17					
Blunt Trauma					7				10	
Impalement & Foreign Bodies									4	
Enema Tip Injuries	1	5								12
Surgical Errors					6	19				

Table No. 1

*Presented at the Meeting of the Society of Abdominal Surgeons, April 1967, Washington, D.C.

Total Reported Cases From Previous Slide

Perforations	471
Stab Wounds	157
Gunshot Wounds	301
Miscellaneous Wounds	13
Lacerations, Contusions, Abrasions	81
Blunt Abdominal Trauma	17
Impalement & Inserted Foreign Bodies	4
Enema Tip Injuries	18
Surgical Errors	19

Table No. 2

falls, straining, coughing, weight lifting and automobile accidents.^{1,16} In nonpenetrating injuries involving the colon, the site of trauma is usually located near the junction of a mobile and a fixed portion of the bowel, such as the junction of the sigmoid and descending colon, the transverse colon near either the splenic or hepatic flexures, or at the junction of the cecum, with the ascending colon. Generally speaking these injuries are innocuous and self-healing, unless they produce hemorrhage sufficient to significantly interfere with local or systemic circulation. It is logical to assume that this type of injury probably occurs considerably more commonly than it is reported.

Diagnosis

The diagnosis of injuries to the colon and rectum is generally arrived at by the logical evaluation of the information at hand and usually with a valid conclusion.¹² History is important in these cases, since one must know whether the injury was produced by a nonpenetrating force or whether the wound was made by an entering foreign object. The site of entry, as well as the direction entered, may give some indication as to the organ involvement. The patient, generally, will complain of abdominal pain which is constant and frequently associated with colicky exacerbations. In the event that peritoneal contamination is present, as the contamination continues, the patient will become progressively more ill, with increase in degree of pain. Nausea or vomiting is frequently present. The patient may also have noted the passage of red blood in the stool. It is unfortunate that some patients are intoxicated at the time of injury and conse-

quently, incapable of giving a comprehensive description of what happened.⁴

Physical examination reveals an ill individual in acute pain. In the case of a penetrating object, there will be a site of entry and there may or may not be a site of exit. The patient frequently will demonstrate some degree of shock or hypotension. Fever and tachycardia are usually present. Examination of the abdomen will reveal generalized abdominal tenderness and frequently rebound and percussion tenderness. Voluntary and involuntary muscular guarding usually are present. Peristaltic activity will be hypoactive or absent. Rectal examination may reveal the presence of fresh blood on the examining finger and in some cases it is possible to palpate a rectal injury.¹³ Sigmoidoscopy should be performed on all individuals since it is possible, on occasion, to see the offending lesion. It should be done delicately to prevent aggravation of the existing situation and preferably without any patient preparation.

Laboratory investigation should include a blood count to indicate the presence of significant blood loss, as well as a leukocytosis and shift to the left indicative of peritoneal contamination. X-ray studies should include upright and decubitus films of the abdomen, with the following possibilities in mind: 1) the presence of free air in the abdomen, 2) retained metallic foreign objects, 3) unsuspected fractures with fragments which could cause perforation, 4) pararectal extravasations of air indicating perforation of the rectum, as well as 5) distention of the small bowel with air-fluid levels resulting from existing peritonitis due to fecal contamination.¹² Generally speaking, the use of contrast media is contra-indicated in these patients, particularly barium products, since in the event a perforation of the colon exists, barium is a notorious irritant and will produce extensive adhesions. Some authors have recommended the use of water soluble contrast media in an attempt to demonstrate the presence of rectal injury.⁷

Management

Most authors, at the present time, agree that a sound aggressive surgical approach is

necessary in treating these patients. Some authors, however, recommend cautious conservatism, with respect to early surgical intervention.¹⁶ These are primarily interested in controlling unnecessary abdominal exploration. It should be made plain that no rule of thumb exists in the treatment of colonic and rectal injuries, and that in each case the treatment must be individualized to the patient. Treatment begins before the patient reaches the operating room and often an hour delay to prepare the patient and establish some degree of vascular stability will be a benefit, rather than a liability. Careful attention should be given to the preoperative preparation of the patient.^{5,14} Evaluation and treatment of shock and shock-like states, blood and fluid replacement if indicated, the judicious use of antibiotics and tetanus-gas gangrene prophylaxis are essential. There are multiple procedures currently being employed in the treatment of this type of injury. The three most commonly recommended methods are: 1) primary closure with or without diverting colostomy; 2) primary resection with or without diverting colostomy; and 3) exteriorization procedures.^{5,14} Primary definitive procedures, such as simple closure or resection should be the first choice of all surgeons. Generally speaking, if the wound is recent and not extensive, simple debridement followed by a two-layer anatomic closure is generally satisfactory. In more extensive wounds, assuming that the patient is physically capable of withstanding the procedure and if it is possible to remove all devitalized tissue by resection, resection with anastomosis is the preferred method of treatment. Any time that there is a question whether a primary closure or resection will leak or extensive contamination has occurred which could conceivably compromise the repair, a diverting proximal colostomy is indicated. Exteriorization procedures generally are reserved for cases in which extensive segments of the bowel wall are destroyed, making repair difficult if not impossible, or when the patient's general condition is so tenuous as to prohibit a more extensive procedure. Exteriorization procedures when performed are not without complications, since multiple further surgical procedures will gen-

erally need to be done and the exposed segments of segments of bowel create handling problems postoperatively. In rectal and perianal injuries it is extremely important to remember to repair any rent that occurs in the sphincter apparatus.¹² At the time of operation, exploration of the abdomen is essential since a large percentage of patient's will have associated other organ involvement.⁵ In addition cultures should be taken for sensitivity studies and appropriate drainage established before the wound is closed. Depending upon the degree of abdominal contamination consideration should be given to irrigation of the peritoneal space with appropriate antibiotic solution. Postoperatively these patients should be managed according to accepted surgical techniques and the use of antibiotics should be individualized to suit the patient. The most commonly encountered postoperative complications are: 1) wound infection, 2) intra peritoneal abscesses, 3) anastomotic leaks, 4) intestinal obstruction, 5) fistula formation, and 6) renal failure.^{5,9}

Summary

Injuries to the colon and rectum can be a real challenge. Early definitive surgery is generally felt to be the treatment of choice. Generally speaking, the indications for operation are: 1) an acute abdomen, 2) the presence of intra peritoneal free air, 3) unexplained or persistent shock, and 4) proctorrhagia.

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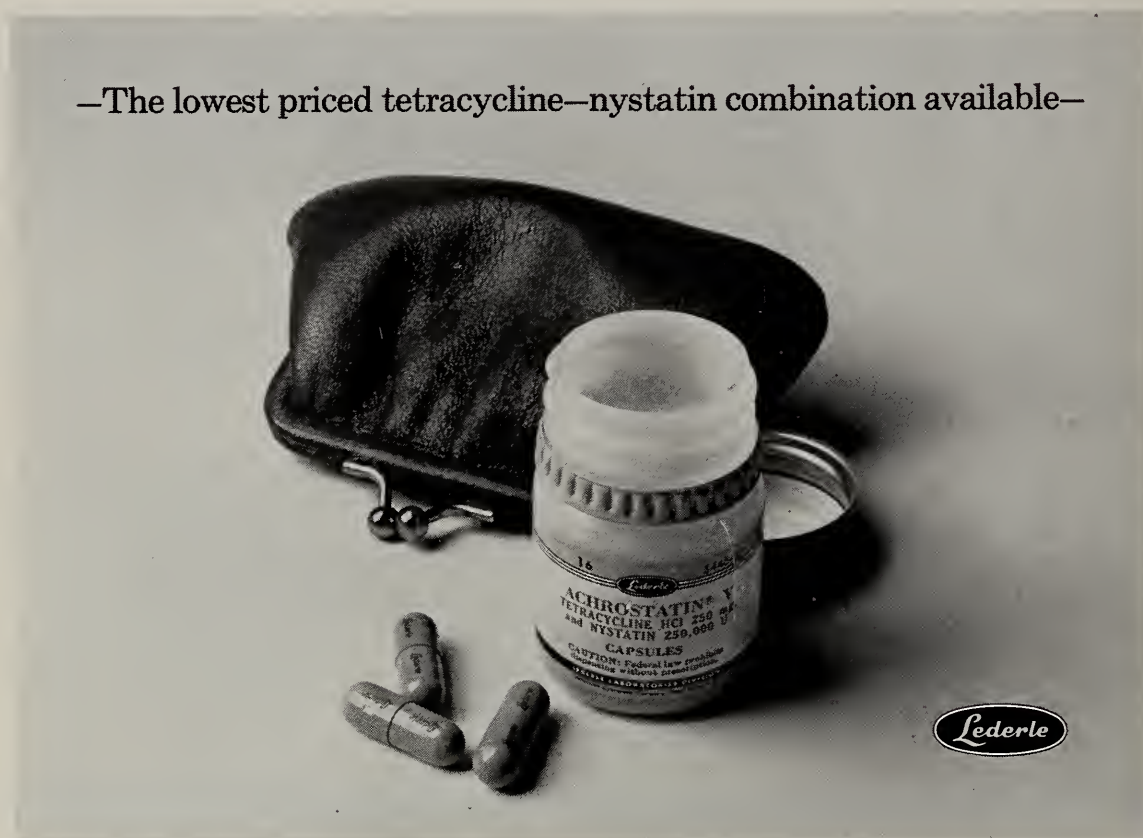
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The authors describe bizarre neuropathic alterations and behavior under this combination of drugs.

Observations on Chloroamphenicol with Pentobarbital Anesthesia in Animals

JAMES W. PATE, M.D., and ARTHUR BOOTH, M.D.,* Memphis, Tenn.

While studying the problem of renal transplantation involving mongrel dogs under pentobarbital anesthesia and receiving chloroamphenicol intravenously, it was noted that the postoperative course was bizarre. The animals were being mechanically ventilated with a cuffed endotracheal tube and the only variation in this group of animals and a large "control" group of animals was the addition of 50 mg/kg of chloroamphenicol intravenously over approximately a 2 hour period. Of 8 animals, the outcome can be summarized as follows:

(1) Three animals never regained consciousness and died within the first 18 hours after operation for no obvious reason.

(2) Four animals were blind for the first 3 to 4 days after operation. One of these animals also had a hind quarter paralysis and was subsequently sacrificed. One of the animals became extremely vicious and required sacrifice several days later. Another animal again became so vicious that he could not be evaluated neurologically. Preoperatively, these animals were pets, very gentle and docile.

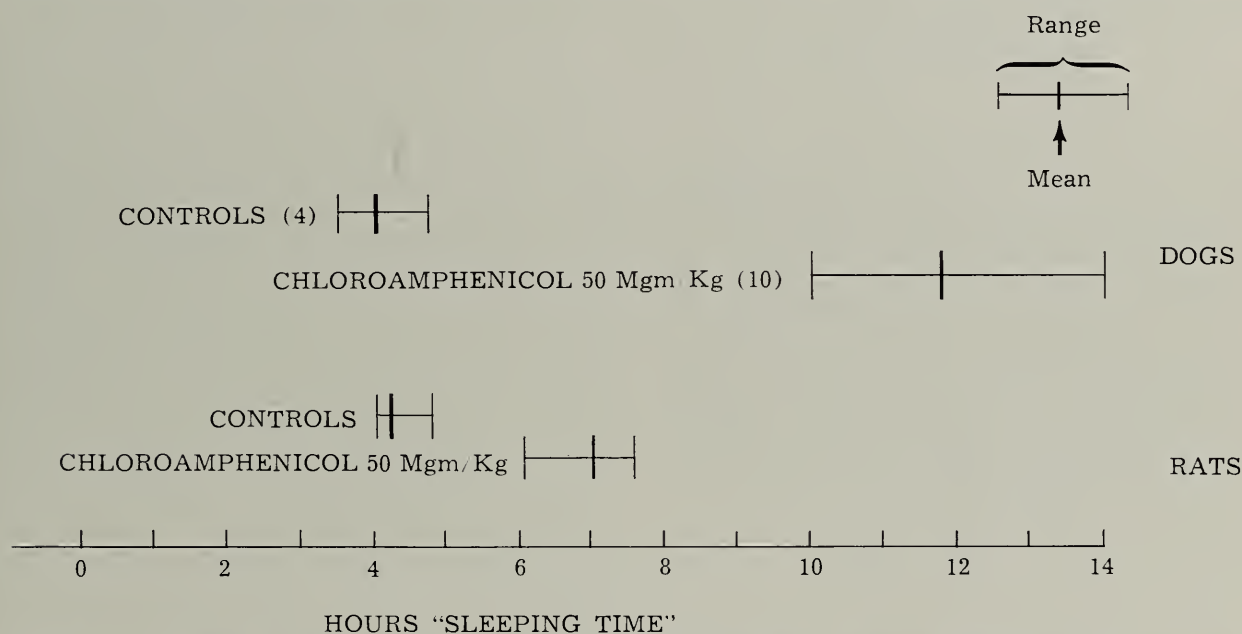


FIGURE 1: "Sleeping time" administration of pentobarbital and pentobarbital plus chloroamphenicol in dogs and rats.

*From the Department of Surgery, University of Tennessee College of Medicine, Memphis, Tenn.

Appreciation is expressed to: Drs. Gouffan and Hines, Department of Surgery; Dr. Robert Utterback, Department of Neurology; Dr. Jerry Francisco, Toxicology Laboratory, Department of Pathology; and Margaret Eckstein, Oncology, all of the University of Tennessee, for their help in this project.

Partial support of this project by American Cancer Society, Grant #243301 4793R to the University of Tennessee.

This phenomenon was investigated in more detail.

Rats. Twelve adult *white rats* of about 750 gm weight were given pentobarbital intraperitoneally at a dose of 25 mg/kg. Six of these animals were given chloroamphenicol 50 mg/kg intraperitoneally. Sleeping time was determined by ability of the animal to voluntarily stand. Results are shown in figure 1.

Mice. Chloroamphenicol succinate sodium

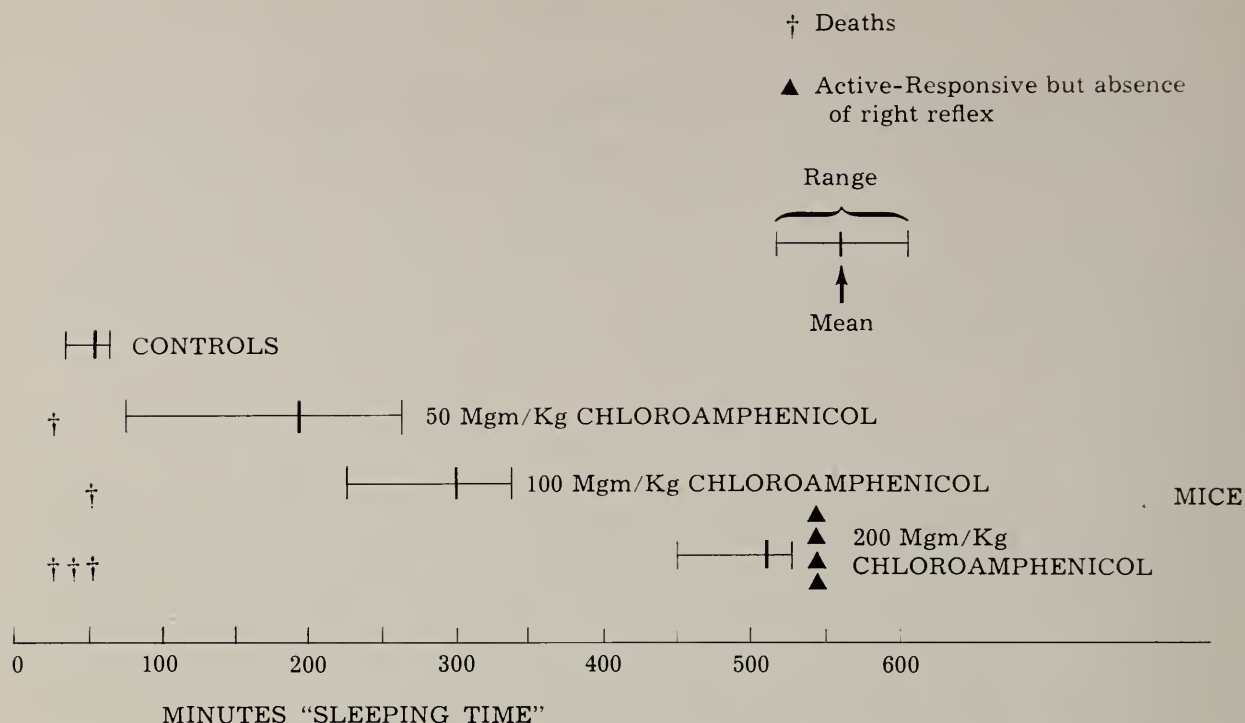


FIGURE 2: "Sleeping Time" after varying doses of chloroamphenicol following pentobarbital anesthesia in mice. Mortality indicated.

salt was used. The durations of anesthesia ("sleeping" times) in mice were recorded from the time of intraperitoneal injection to the time when the animals could stand when stimulated. Chloroamphenicol was given intramuscularly and simultaneously pentobarbital sodium was injected intraperitoneally. The anesthetic doses of pentobarbital was 50 mg/kg; 100 mg/kg and 200 mg/kg. Eighteen animals were used at each dose level. Results are shown in figure 2.

Experiment C-2. Adult, apparently healthy mongrel dogs were anesthetized with intravenous pentobarbital anesthesia at a dose of 25 mg/kg of body weight. Cuffed endotracheal tubes were inserted and mechanical ventilation with air was established.

Group I. Animals had cannulae inserted into the femoral artery. The following were monitored for 2 hours: pulse rate, arterial blood pressure curves, pupillary response and corneal reflex. A Burroughs-Wellcome Block-Aid electrical stimulator was used to determine neuromuscular activity. Blood was withdrawn at intervals and the oxygen saturation determined, using an American Optical Reflectance Oxymeter. Chloroamphenicol (50 mg/kg)

was injected intravenously at 15 min., 30 min., 1 hour or 2 hours after the pentobarbital. "Sleeping" time was taken from time of induction of anesthesia to the time that the animal voluntarily raised his head. The time interval from anesthesia to injection of chloroamphenicol was of no apparent influence on "sleeping time."

After 12 hours, there no abnormality was noted in these dogs.

Group II. Two dogs were given the same dose of pentobarbital and observed by same parameters as above. Chloroamphenicol (50 mg/kg) was given in 200 cc. of D₅W intravenously over a 20 minute period.

Group III. These experiments were exactly as in above groups, except that an extra dose of Nembutal (50 mg) was given three hours after the original dose. Results of experiments in Groups I, II and III are summarized in figure 1 and table 1. Varying methods of administration of chloroamphenicol showed no marked differences.

Experiment D. Adult mongrel dogs were anesthetized with pentobarbital at above doses. A continuous intravenous drip of D₅W was given, 300 cc. in 8 hours. Blood was withdrawn at indicated times (table

2) and levels of pentobarbital determined by ultraviolet spectrophotometry. Results demonstrate no significant effect of chloroamphenicol on blood clearance (detoxification and/or excretion) of pentobarbital (4 dogs).

Summary

(1) Intravenous chloroamphenicol (50 mg/kg) given to dogs under pentobarbital anesthesia was associated with: (a) prolonged anesthesia time (b) cerebellar ataxia (c) "personality" changes and (d) lack of response to muscle stimulation (electrical). There was no significant effect on: (a) pulse rate (b) arterial pressure curves (c) arterial oxygen tensions or (d) pupillary or corneal reflexes. The changes are dramatic, last over 18 hours and seem exaggerated by repeated doses of pentobarbital subsequent to the initial parenteral-chloroamphenicol.

(2) In the dog, there was no effect of chloroamphenicol on rate of removal of pentobarbital from the circulating blood. Marked abnormalities were seen in dogs who had received chloroamphenicol at blood levels of pentobarbital identical with those of awake, alert and apparently normal dogs who had not received chloroamphenicol.

(3) In rodents (rats and mice) given pentobarbital IP, there is an increase in "sleeping" time that is related to dosage of chloroamphenicol given intraperitoneally.

(4) Further studies on the effects of chloroamphenicol when given with pentobar-

bital, as well as with other anesthetic agents, is clearly indicated. Until this problem is elucidated, it might be wise to avoid this combination of drugs.

Table I

Results—Dogs

Changes from control levels after Chloroamphenicol

Early Observations

- a) Oxygen saturation, arterial blood — no change
- b) Blood pressure—no change
- c) Cardiac rate—no change
- d) Neuromuscular activity—before chloro.-4+ in all
 - 15 min. after chloro. 0 to 2+
 - 30 min. after chloro. 2+ to 3+
 - 60 min. after chloro. 1+ to 2+
 - 120 min. after chloro. 2+
- e) Pupillary response—no marked change
- f) Corneal reflex—no change
- g) "Sleeping time" controls— 4 ± 0.5 hr.
experimental— 10 ± 2 hr.

Late Observations

- a) Control Animals

All control animals normal at 12 hr. after anesthesia
- b) Experimental Animals

Twelve to fourteen hours after induction of anesthesia. All experimental dogs unable to raise head, semicomatose, varying cerebellar ataxia and contorted positions. Random jerking in some. Some blind.

Twenty-four hours "personality" changes. Slight to marked ataxia. Some unable to swallow. Signs worse in two dogs receiving an extra dose of pentobarbital (Group III).

Forty-eight hours—essentially normal.

Table 2

<i>Barbiturate Blood Levels</i>							
Control			Chloroamphenicol 50 mg/kg. IV				
Dog#	1	2	3	4	5	6	
Control period	2.78 mg%	3.60 mg%	3.24 mg%	2.78 mg%	2.78 mg%	2.60 mg%	
+90 minutes	82%	86%	71%	83%	96%	75%	
+ 8 hours	73%	60%	66%	66%	66%	71%	

(% of control value)

Emergency Treatment of Facial Injuries By General Practitioners and General Surgeons

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Massive face injuries are potentially fatal. Immediate skilled treatment may be life saving. In this age of high speed travel, terrible injuries to the face are common. Treatment should be planned to save life and limb, minimize morbidity and, if possible, obviate secondary operations. Patients with injuries are first treated by house officers, general physicians, general surgeons and orthopedic surgeons. Often these physicians have little training in the care of face injuries. Rarely is a plastic surgeon available for primary care.

When the physician is presented with a patient with massive injuries he must: (1) assure an airway; (2) start treatment of shock; (3) stop bleeding; (4) make an accurate and complete diagnosis of all the patient as there may be one injury which takes precedence; and (5) make treatment as definitive as possible.

Maintenance of an airway and treatment of shock are urgent. Many persons having massive facial injury have severe airway obstruction. In such cases a mechanical airway should be put in place and the oropharynx and nasopharynx cleaned thoroughly. An endotracheal tube may be placed if an operator experienced in its use is available. Tracheostomy is often needed. Oxygen is given if available.

As soon as the airway is assured, major bleeding should be controlled by application of hemostats and pressure dressings, and simultaneously the treatment of shock by fluid replacement is started.

Many patients with severe trauma to the face have lost a considerable part of the circulating blood volume. The amount of blood lost is frequently underestimated. As soon as a patient with significant trauma is presented for treatment, two large gauge needles or catheters, preferably 16 gauge or larger, should be placed in appropriate veins and lactated Ringer's solution or other fluid suitable for volume replacement be administered until crossmatched blood can be obtained.

When these things have been done the patient is under at least temporary control. A rapid but complete examination should be carried out. A note should be made as to movement of the extremities. A complete blood count and urine analysis should be done. The hematocrit often is normal as it may take several hours for the hemodilution to cause the hematocrit to fall. If the patient is unable to void, a Foley catheter should be placed. Electrocardiograms and chest x-ray examination should be done as collapsed lung and myocardial contusion are frequent.

Patients with massive facial injuries frequently have injuries to other parts of the body. Thus, a collapsed lung must be expanded, a ruptured viscus repaired or removed, and a broken bone aligned and immobilized. Procedures to effect these repairs may take precedence, or can often be done concurrently with the facial surgery.

A patient with severe face injuries should be taken to the operating room; anesthesia is usually endotracheal, sometimes local; before anesthesia is started, shock should be under control; the stomach should be emptied by a large gauge stomach tube. (Figs. 1 and 2)

After anesthesia is satisfactory, the wounds should be cleansed thoroughly. I have found that washing the skin with a sudsy solution of saline and Phisohex (city tap water and Dial soap can be used if necessary), a gentle cleansing of the wound itself, followed by copious irrigation of the wound with cool sterile saline or sterile water gives excellent asepsis. Hot solutions damage tissue; one should use solutions at room temperature or cooler. Hot solutions have no place in the operating room.

Any bleeders previously clamped should now be tied with very fine plain catgut, 4-0 usually is satisfactory. Prep gloves and gowns should be discarded, the surgeon redresses and places appropriate drapes.

Debridement should now be carried out. Any dead tissue must be removed. All ac-



Fig. 1—This 40 year old male was injured in an automobile accident. When first seen he was suffering from severe hemorrhagic shock. After resusciation his injuries were repaired using local anesthesia of 2% Xylocaine. Although a small part of the ear was lost, the patient did not wish any further surgery and was satisfied with the cosmetic result.

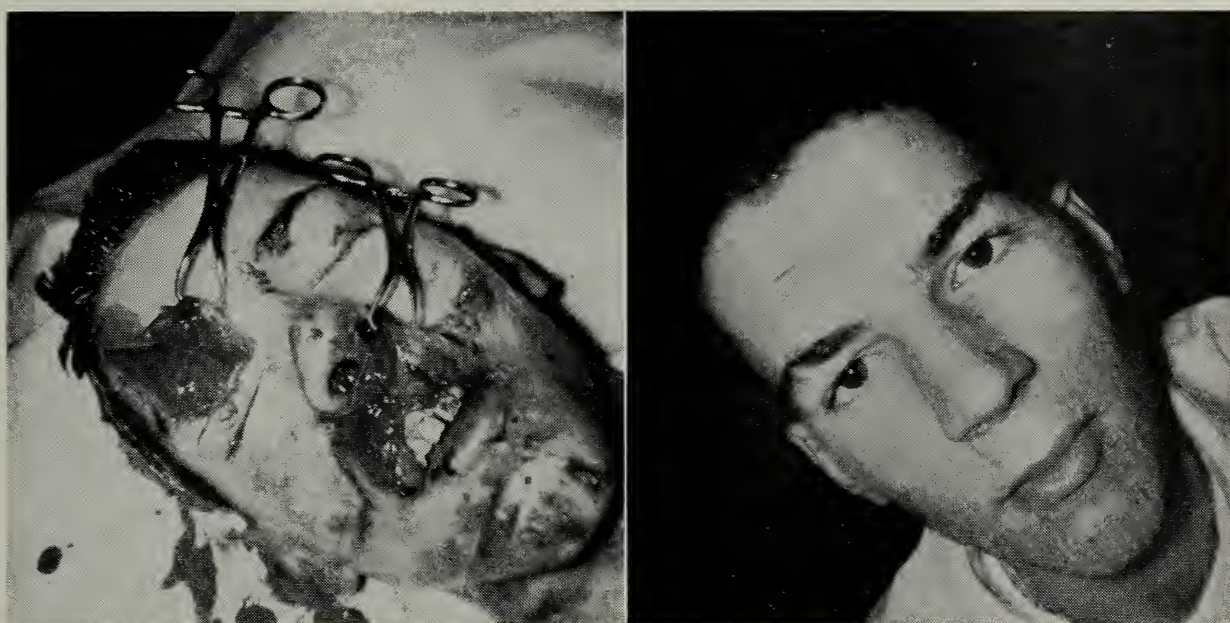


Fig. 2—A 16 year old male with a windshield type injury. Primary repair was done under 1% Xylocaine local anesthesia with a good cosmetic result.

cessible foreign bodies should be removed. Hemostasis must be obtained. All viable tissue must be preserved until the details of the repair are decided upon.

Some wounds will be incised at right angles to the skin and need no revision. Many will be jagged, ragged and beveled. These latter can often be revised to surgically acceptable incisions. Frequently, with a little care, natural wrinkles and folds can be utilized at the time of the initial operation.

Deep layers should be built up carefully

by approximating tissue, using sutures of 4-0 or 5-0 plain catgut. The skin is then carefully approximated using a slightly everting stitch of 5-0 nylon without tension. Prominent anatomic landmarks should be approximated first for each layer to assure proper alignment.

The most common severe bony injuries are fractures of the maxilla and mandible, nose and zygoma. Fractures of the nose usually can be reduced by elevation with a hemostat and moulding with the fingers, and reduction held with packing and ex-

ternal splinting with an aluminum splint. An open fracture of the zygoma can often be replaced and fixed in place with one or two sutures. A closed injury frequently can be reduced with towel clip traction. A shattered mandible can be stabilized with a Kirschner wire or wire sutures if necessary. Definitive fixation of the jaws by intraoral wiring, et cetera, should be deferred until the condition of the patient becomes stabilized.

With even the most massive facial injuries, significant skin loss is rare. When it occurs, a flap frequently can be turned from a nearby area. If this is not practical, a split thickness skin graft can be placed. If this is not possible, then raw surfaces should be dressed with a fine mesh gauze for delayed closure as soon as possible.

Debridement about the eyelids should be minimal. The lids heal kindly if they have any chance at all, as demonstrated in Figs. 3 and 4.

I prefer not to put dressings on face wounds. A coating of Aureomycin ointment is placed on each suture line and the wounds are left exposed. Alternate sutures are removed 48 hours after operation, half the remainder at 72 hours, and all are out at 96 hours. The use of broad spectrum antibiotic coverage postoperative is usually indicated, and appropriate tetanus immunization is a *must*.

Surgical procedures as outlined above adds a little to the time required for *minimal* surgery for severe facial injuries.

When it is feasible to take this time (and it usually is, as the patient's condition improves as the operation proceeds and resuscitation continues) it is rare for the patient to request cosmetic surgery at a later date.

Of course, there are times when the general condition of the patient and the necessity of treating more serious injuries elsewhere make it necessary to do a very rapid facial repair which will need to be revised later. The patient's life must not be jeopardized for a cosmetic result.

Summary

Emergency management of massive facial trauma includes:

- (1) Establish an airway:
 - a. Mechanical airway and suction.
 - b. Tracheostomy.
- (2) Stop bleeding and treat shock:
 - a. Canulate two veins with 16 gauge needles.
 - b. Give lactated Ringer's solution; give blood as soon as possible. Hypovolemia is almost always underestimated.
- (3) Make accurate and complete diagnosis of all injuries. Treat in order of importance.
- (4) Use good surgical principles and make repair of the wounds as definitive as possible.

Adherence to a regimen of this type will minimize morbidity and mortality, and the necessity of later revision.



Fig. 3—This 30 year old male, involved in an automobile accident, sustained multiple injuries including brain concussion, a fractured lumbar vertebra, fractured pelvis, ruptured urinary bladder, ruptured gall bladder and the facial injury shown in A. B shows immediate postoperative appearance, and C the final result. Tracheostomy was done at completion of repair of the face.

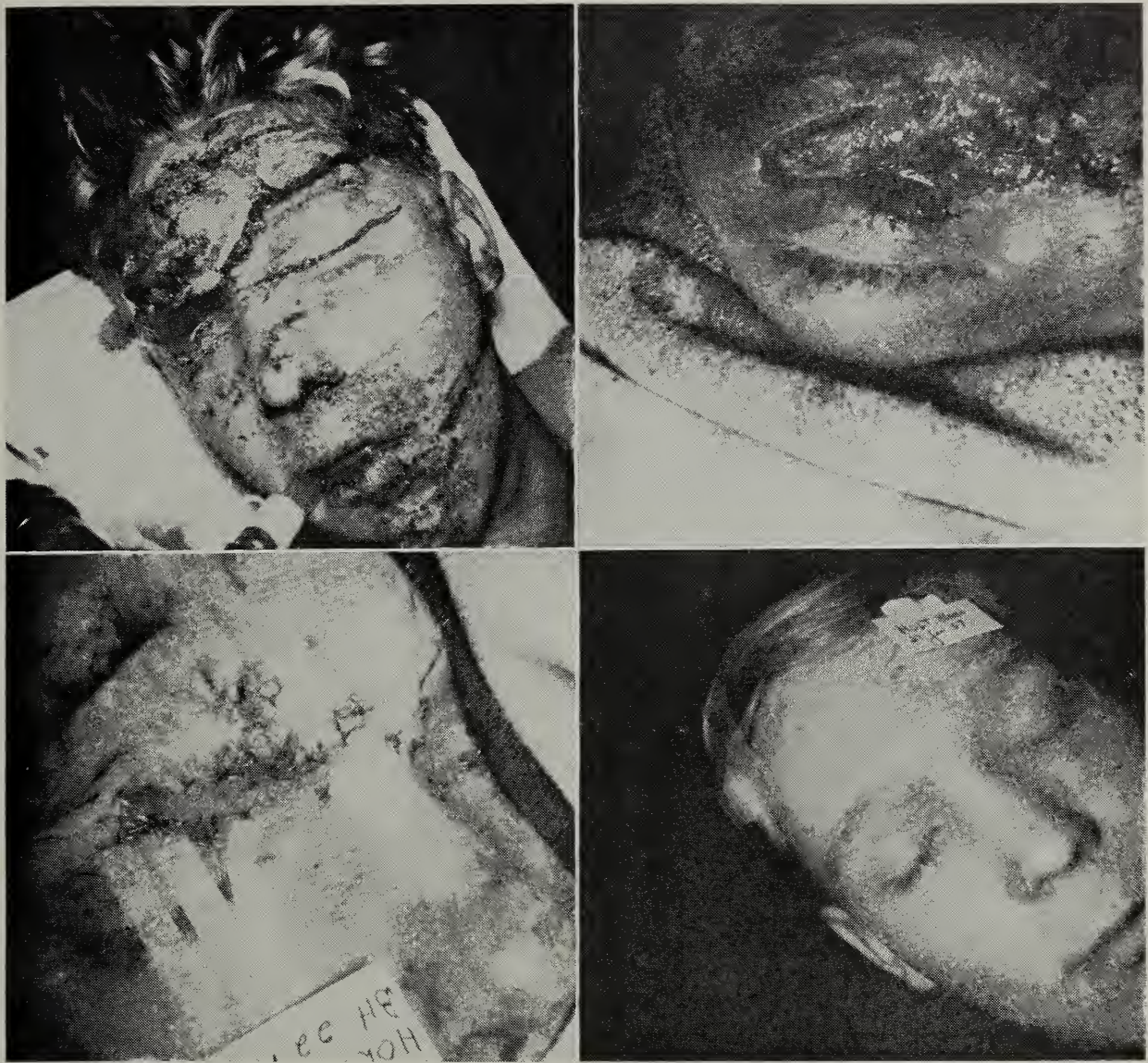


Fig. 4—A 16 year old male with face lacerations, contused chest, contused brain, and near amputation of the tongue. A large piece of skin was missing from the medial portion of the right upper lid. Under general anesthesia, a flap was turned to fill the defect. An excellent cosmetic result was obtained and the patient recovered completely from the other injuries.

The authors review the probable trends in the care of the mentally retarded. It will involve more individualization and less institutionalization.

State Hospitals for the Mentally Retarded — Circa 1975^{*}

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In the recent past one of us wrote "... the programs of the traditional institutions will undergo major changes. They will establish a new role for themselves and will remain a key element in the continuum of care."¹ More recently other documents emphasized the desperate plight of the institutionalized mentally retarded in the United States and implied, if not overtly stated, that the traditional system of residential care in its present form is about bankrupt.²⁻⁴ There appears to be reasonable agreement: (a) that, historically, residential programs represented the main if not the only component in the organized effort to care for the retarded; (b) that institutions are still a significant element in the overall program; (c) that major improvements must be forthcoming if the traditional residential settings are to be labeled as therapeutic, developmental, educational, rehabilitative, and humanistic; and (d) that even a minimal level of progress on a nationwide basis requires major increases in capital and operational expenditures.⁵

The needs for the roles of the traditional

large and multi-purpose residential institutions are under constant debate, often producing more heat of emotionality than light of wisdom. The dedication of the Arlington Hospital and School for the Retarded offers a good opportunity for review of some of the issues. The establishment of the hospital represents a large capital investment in nearly 700 beds, a long term commitment in support, and a major step in the care of the retarded in the State of Tennessee. The magnificent buildings bespeak permanence. Is this permanence justified? Will the beds and the program still be needed a decade hence? We plan to address ourselves to these questions in this paper. We shall write primarily from a nationwide viewpoint and make only few references to Tennessee. We will start with some general ideas, continue with reflections on the recent past, comment on current trends, and conclude with selected predictions. The speed with which changes occur today prevent long term predictions, therefore we chose 1975 as our target year.

We shall attempt to master reasonable objectivity in writing about an emotionally charged subject, and admit our biases in advance. Because our professional identities originate from clinical work in child psychiatry and psychiatric social work, we are apt to place a higher priority on personality growth and development than on buildings and other physical arrangements. Since both of us spent a considerable period of time in professional work in a hospital for the mentally retarded, we are inclined to think in the medical context. Finally, as former administrators in a large institution, over nearly two decades, we find it difficult to separate our thoughts and concepts from our varied experiences there—both good and bad.

Hospitals for the retarded are often sub-

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sumed under the more generic term: institutions. It seems advisable therefore to start with attempting to define what we mean by an "institution for the mentally retarded." It is a place, usually operated by a state, in which a sizable number of mentally retarded individuals, who are highly diverse in age, symptomatology, and severity of mental retardation, are cared for over a prolonged period. In this framework a "hospital" differs from other institutions only by the fact that planning, programming, patient-management and administration are conceptualized in a medical context. Similar institutions are administered under other philosophies, and are then called schools, homes, colonies, training or residential facilities. We will use these terms interchangeably in this paper.

Hospitals for the retarded vary substantially in size and in programs. As mentioned, only a few decades ago these institutions were the only major resource for the care, treatment, education, and rehabilitation of the retarded. Individuals came soon after the diagnosis was made; the few exceptions were those for whom there was no space in the institutions. Most stayed for a long time, often for life. They were "out of sight and out of mind" of the public, often even of their families. They came whether they needed medical care or education, and frequently stayed simply because there were no other places for them to go. Institutions had several characteristics in common. They were usually overcrowded, understaffed, underbudgeted, and were plagued by long waiting lists for admission. Yet in most of them, devoted and highly motivated persons, with few resources, performed endless tasks for the retarded.

In recent years, with increasing frequency, strong opinions have been voiced, demanding the immediate abolishment of these institutions. Some persons joining this clamor are new on the mental retardation scene and know relatively little about the struggles of the last decade; they believe that without much planning, simply by edict or magic, institutions can be made to disappear. They often overlook some important facts: (a) there are approximately 200,000 people in the institutions in the United States today, (b) this figure has

risen by an average of 4,000 each year during the last decade, (c) it is projected that the number will reach nearly 250,000 by 1975, (d) the number of patients per 100,000 population is also on the rise, with the figure being approximately 100 today and projected to reach 110 by 1975, and (e) the number of institutions is also increasing with over one-third of the present institutions having been opened during the last 12 years.⁶

What is the situation in Tennessee in these respects? Statistics show that the State is below the national average: (a) in public institutional beds for the mentally retarded per 100,000 civilian population, (b) in the rate of annual admissions, (c) in releases (alive and through death) per 1,000 average resident patients, and (d) in daily maintenance expenditures per patient under treatment.⁶ Some of these statistics might be interpreted as advantageous for the retarded of Tennessee, but most professionals would consider several as being disadvantageous.

During the last two decades, particularly during the past 10 years, rapid shifts occurred in most programs relevant to mental retardation. Changes have been slower in coming in the institutions but the developments in the overall programming indirectly have resulted in significant trends in the hospital systems. A number of forces contributed to the changes. They included the deep concerns of three presidents and several congressmen in mental retardation; the dynamic leadership of the parents organizations; the recommendations of the President's Panel (President Kennedy's Panel on Mental Retardation, 1961-62), of the Special Assistant to the President (Stafford L. Warren, M.D., 1963-65), and of the President's Committee (President Johnson's and President Nixon's Committee on Mental Retardation, 1966-); the continued involvement of important federal agencies; the new vitality acquired by the American Association on Mental Deficiency; the growing commitments to retardation of other professional organizations; the contributions of the Joseph P. Kennedy, Jr. Foundation; and the implementation of key recommendations of the various advisory groups, e.g., state by state comprehensive

planning for mental retardation, the establishment of community facilities, and the development of research centers and of university facilities.

Probably the most important change in the general approach to the care of the retarded involved the growing emphasis on community care, treatment, education, rehabilitation, and employment. The growth of community-based programs significantly influenced institutional admissions and the length of stay of certain types of patients. The establishment of classes in the public schools is a good example.

Some of the trends clearly noticeable today in the institutional programs are of major significance for any projections for the future. A listing of examples must certainly focus at least on the following. Those related directly to patients are: (a) Mildly retarded children and adolescents of school age are rarely admitted to a residential setting for the primary purpose of education. Today, the institutionalization of this group usually results from the presence of superimposed physical or emotional problems. (b) The proportion of younger and more severely retarded children has been increasing among the admissions. (c) The prevalence of multiply handicapped patients is on the rise in the hospitalized population. Sensory, physical, emotional and behavioral disabilities are usually involved among the multiple handicaps in a variety of combinations. As a consequence, institutional programs have become more complex, multifaceted and multidisciplinary. (d) Contacts between the institutional staff and patients and their families are established before actual admission. Pre-admission programs are becoming the rule, not the exception. (e) Hospitals are oriented increasingly toward early release and discharge of patients. Aftercare and placement programs are becoming more common.⁷⁻⁹

Those related more directly to the institutional program as a whole are: (a) The newer hospitals are smaller, more dispersed, and located closer to population centers. (b) There is a trend toward specialization among the hospitals, though the multi-purpose institution still represents the most common prototype. (c) Institutions are be-

coming less overcrowded. (d) The educational background and the training of employees is advancing, hence most programs are improving. (e) The community orientation of the institutions is increasing. The resources of the hospitals are becoming available on an outpatient or non-residential basis; doors are being opened; the flow of visitors to the hospitals, and visits of the patients to their homes are on the rise; and volunteer programs involving parents, other adults and youth are expanding.

Predictions about institutional programs are difficult to make for the next decade because numerous forces will affect the outcome. We expect that many changes will originate within the institutions; however, we also foresee that some of the most important changes will result from the advances in community programs. Recent developments in the field of general mental health represent a good parallel; the increasing availability of community care produced a decline in the number of patients in state mental hospitals as well as significant improvements in the hospital programs. We are, however, concerned lest a slowdown in the current momentum of the growth of community services results in a reversal of a similar trend in mental retardation. Institutional settings could again become the mainstay of care, with overcrowding and dehumanization of patients soon resulting.

Therefore, we favor, support and strongly urge, the expansion of community programs. In fact, "There is no need for the early establishment of residential centers where they do not exist. . . ." Yet today the continued existence of waiting lists for admission clearly attests to the present and continuing need for institutional beds. In addition, the state institutions still represent essential backstops for many community programs. Some successful community ventures would soon become less impressive without their ability to transfer their failures to a state hospital. Hence, from all evidence, we expect that the institutional system will be with us for many years. For this reason we plead for the support and improvement of this system rather than for its, often unwarranted criticism.

These thoughts then bring us to some predictions. First and probably foremost, we expect that gradually the institutional programs will lose their isolation and will be integrated into a network of services combining those known today as "community-based" and as "institutional."

What will an institutional program for the mentally retarded look like in the 1970's? Since progress will be gradual, not all changes will involve any one hospital at a specific time. First, let us look at those shifts which will most directly produce changes in patient characteristics and patient care. The institutions will further decrease both in bed capacity and in overcrowding. The patient population of the hospitals will become more homogenous because the trend toward specialization of the institutions will continue. Such specialization has many advantages for therapeutic programming, but it also results in an increase in the frequency with which patients need to be transferred from one place to another, thereby adding to the problems of early adjustments.

The specialization could occur in a variety of directions. We strongly advocate that chronologic age be considered a more significant dimension of specialization than diagnosis. As a consequence, we envisage the development of hospitals or residential centers that care for children requiring relatively long term care, but who may be handicapped either intellectually, emotionally, physically, adaptively, or in any combination of these. The establishment of similar hospitals for adults would be an obvious parallel.

Institutional goals will be more clearly defined both in general terms and in specifics for each patient. The general aims will include: (a) the support of maximal growth, development and maturation of each patient within his potential, with the hope that most if not all will reach increasing degrees of independence; (b) the alteration of those symptoms in the patients, in their families, and in their community environment which precipitated admission; (c) the specific treatment of mental retardation or of the superimposed handicaps; and (d) the discharge of the patient as soon as conditions permit.

Currently, 24-hour care is the main program component of institutions. We expect this facet to diminish in relative and absolute size with increasing emphasis on partial hospitalization and on outpatient activities. Prehospitalization services will become a particularly important phase of ambulatory care. In this process at least the following will be determined: (a) the diagnosis, (b) the factors which contribute to the need for hospitalization, (c) the available alternatives for hospitalization, and (d) the specific goals of admission and the planned interventions. Diagnosis will involve many more issues than the mere presence or absence of mental retardation. In addition to the specific medical diagnosis, it will focus on symptomatology, the severity of retardation, the nature of other handicapping conditions, the state of emotional development of the patient, the degree of family integration or disintegration, and the educational and vocational achievements and readiness of the individual. Strong emphasis will be on the assets of the patient as well as on his liabilities, and on the identification of remediable conditions.

Today common reasons for institutional placement are: (a) the retardation is of such severe degree that special supportive services are required for survival; (b) severe superimposed physical, emotional and behavioral symptoms aggravate the conditions; (c) the retarded person constitutes a danger to himself or to others in the community; (d) the patient cannot be cared for at home or in a foster setting because he represents too much of a physical or emotional burden on others; (e) the home conditions are inadequate or no family is available to care for the retardate; and (f) necessary community resources are either absent or insufficient. We expect that most of these reasons will still prevail during the next decade, though we hope that the variety and quantity of community resources will rapidly increase. We believe that in clinical practice the assessment of the need for admission will be judged within such a framework.

The alternatives for hospitalization in this context are obviously dependent on the availability of community resources. The final determination of admission will repre-

sent the outcome of collaboration between professionals, parents, and community agencies, taking into account (a) the quality and quantity of available community programs, (b) the patient's needs, and (c) the desires and readiness of the family.

Assuming that hospitalization is definitely indicated, the preadmission process will then attempt to define in each instance (a) the need for 24-hour care as contrasted with partial hospitalization, (b) the specific goals for the inpatient phase, (c) the anticipated length of stay, (d) the extent to which the complex emotional reactions attendant to the crisis of separation must be worked through prior to actual admission, (e) the regimen essential to assure maximal general growth and development of the patient, and (f) the specific treatment, educational and other types of interventions to be instituted.

In this fashion the length of residential stay will be shortened, because the patient will begin to benefit from meaningful programs on his day of admission. During the inpatient phase strong emphasis will be placed on general support of growth and development, on small group activities, on individualized approaches, on utilization of dyadic relationships between the patient and his therapist, on collateral work with family members, and, last but not least, on dignified humanism.

Planning for early release will begin as soon as the patient enters. Within the near future there should be no need for any individual to remain in an institution simply because he has no place to go. Major efforts, however, will have to be exerted toward the development of sizable foster-care programs which can excellently substitute for 24-hour care, and also offer the replacement of the institutional atmosphere with an environment more closely resembling family living.

We also expect significant changes to occur in the over-all characteristics of hospitals. We anticipate a continued trend toward locating new institutions in population centers and in proximity to medical schools and other settings of higher learning. This development should have a major influence on the general programs of the institutions, and more particularly on two

important facets of them, i.e. training of manpower in mental retardation, and research. Traditionally, institutions have been lagging in these latter respects.

Hospitals should find it easier to develop closer ties with health resources such as medical schools and general medical and surgical, psychiatric and pediatric hospitals. Similarly, we expect stronger liaisons between residential settings and nearby colleges and universities. All parties should benefit from such relationships. For example, through affiliations with health resources the institutions should be able to obtain specialized medical services from hospitals better prepared for the care of complex medical conditions, relieving more of their own manpower for individualized and improved general services. The involvement of faculty members, teachers and students, traditionally has produced excitement and improvement in the institutional settings and frequently represented the first step in the development of research programs in the hospitals for the retarded.¹⁰

The need for additional manpower will be critical as the community programs expand. In the past the large institutional setting represented the key resource for manpower knowledgeable in mental retardation. Such training has been primarily at the practical level. We expect that the emphasis in training will gradually shift to more formalized settings of learning, including the entire gamut of educational institutions from community colleges to graduate schools. All these settings will need training laboratories and the residential institutions are well suited for the practicum training of a variety of professionals and semiprofessionals, e.g. medical students, graduate physicians, psychologists, social workers, nurses, etc. In research the situation is similar. Academic faculties are traditionally involved in research and need laboratories. Hospitals for the mentally retarded represent an excellent resource particularly for applied and clinical research. They are ideal for experimentations in new techniques of patient-management, and in program evaluation.

One particular type of university-based unit is of major importance in these respects, namely, the university affiliated

clinical facilities for mental retardation. They carry a major responsibility for the training of professional manpower relevant to mental retardation and a limited responsibility for research. Most of them will have their own laboratories but will benefit from the added resources of the large institutions.

Today's major technologic advances will also result in a host of changes in institutional practices involving essentially every facet of the program from housekeeping to direct patient care. For example, in recent years we had the opportunity to observe the benefits that can be obtained from automated tracking of patients.^{8-9,11-13} Such a system can follow the patients from first contact, through the preadmission phase, the 24-hour care period, the aftercare service, ultimately to discharge. Alerting devices can be developed for morbidity, mortality or for tracking the patients for involvement or lack of involvement in specified programs. Bed utilization can be improved and administrative decisions can be based on factual information rather than on assumptions. We anticipate that the development of such systems will become quite common in the institutions in the 1970's.

The community orientation of institutions will continue to advance at an increasing rate. Admission policies and patient-management practices will be constantly modified in accordance with the identified needs of the surrounding communities. In addition, new arrangements between the residential settings and the general citizenry will represent expanded channels of communication between the hospital and the community. The part-time employment of young people and older persons, and the increasing involvement of parents and other volunteers are examples of such possible new contacts. We expect that, within a decade, full integration of the hospital programs into the total network of services will be well on its way.

In closing, let us return to the State of Tennessee. In our judgment it is ideally suited as a location for a natural experiment in comprehensive program development for the retarded. It has a new hospital, a university affiliated facility, and an

excellent opportunity for the development of community programs. Let us for the moment assume that the "free choice principle,"¹⁴ recently advocated by members of the President's Committee, becomes a reality and that all our predictions will come true. Parents of the retarded in Tennessee then will be in an excellent position to select the location for care, treatment, education, and rehabilitation of their children from among a variety of alternatives. The scene would then be set for healthy competition among programs. The better and more responsive ones would survive and the inadequate and irrelevant ones would soon disappear. We feel confident that under these circumstances the new Arlington Hospital and Training School will establish an important role for itself and thereby prove its value and viability.

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(continued on page 116)

STAFF CONFERENCE

Gailor Mental Health Center* Premature Ejaculation

DR. RAY HAYWORTH, Chief Resident in Psychiatry: The case for today is a 25 year old Negro, single, who presented at the Gailor Mental Health Center with the complaint of having a "mental block toward girls." This term refers to his inability to adequately function sexually due to premature ejaculation, which occurs prior to intromission, and which results in feelings of extreme disgust, anger, and embarrassment on the part of the patient. His appeal for help at this time was prompted by the fact that his girlfriend recently left him, allegedly because of his sexual inadequacies.

History of the Presenting Complaint: The patient has been aware of his problem for many years, dating back to his early teens. His first attempt at intercourse was allegedly at age 14, at which time he ejaculated after heavy petting and was unable to complete the act of intercourse. He subsequently felt humiliated and ashamed. These feelings were compounded by the ridicule which he received from his peers, both male and female, after the girlfriend with whom he was involved spread the story of the patient's inability to complete the sex act. Subsequently, the patient withdrew from contact with girls entirely, aware of feeling afraid and uncomfortable in their presence.

His second attempt at intercourse was at age 18, again with the result of premature ejaculation and subsequent feelings of extreme humiliation. He then refrained from any further attempts at sexual intercourse until approximately one year ago, at which time he was seduced by a woman some 15 years older than himself, and found, much to his surprise, that he was able to complete the sex act. He attributed this success to his liberal use of alcohol, but subsequent attempts to allay his anxiety by this means have proven unsuccessful in that he becomes intoxicated to the point of not being able to participate further in sexual play. All subsequent attempts at intercourse have been unsuccessful, due to the persistence of premature ejaculation. Recent physical examination revealed no genito-urinary disease.

In recent weeks the patient has been constantly tense and anxious, preoccupied with thoughts of his departed girlfriend, with insomnia and anorexia of a moderate degree. However, he has continued to work regularly at his job as a delivery truck driver.

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Past Medical History: The past medical history is negative except for a long history of epigastric discomfort when anxious. The patient has been evaluated on several occasions for these complaints, with no physical or radiographic evidence of pathology.

Background and Developmental History: The patient is the third of 9 children and is the oldest male child. He spent the first 9 years of his life with his maternal grandparents while both of his parents worked. He was "spoiled" by his grandmother prior to her death when the patient was 9 years of age. He subsequently lived in the home of his parents. His mother, only 14 years older than the patient, is described by him as "kind" and "loving," and "always seemed like an older sister to me." Father is described as a large, strong man who was very harsh and strict, demanding too much from the patient in the area of academic and athletic performance. The father had been quite successful in these areas and expected as much or more from his son, to the extent that the father seemed to want to relive his own youth through the activities of his son. The patient related of frequently being beaten severely by his father, for which he (the son) was forced to strip to the nude, and for which the patient often did not understand the reason.

The patient had a childhood fear of horses, was enuretic to age 7, and as a child had recurrent dreams of being chased by man-eating animals. He denied any problems associated with school. School performance was below average, and the patient had few friends. He was active in athletics, participating on the school football, baseball, and basketball teams prior to quitting school after the tenth grade, allegedly because of his father's attitude.

Except for a few episodes of mutual masturbation during adolescence, the patient denied any homosexual activity or ideation. His masturbation has always been associated with heterosexual fantasies. He related of frequently sleeping with his mother when his father was working at night. This activity was allegedly at mother's suggestion, "because she was scared, and I was the oldest boy," and persisted into early adolescence. During his childhood, the patient frequently observed his grandparents in the act of intercourse, and later often overheard his parents when they were similarly engaged. The experiences were always interpreted by him as inflicting pain and injury to the female partner.

The patient has always preferred to be alone rather than with other people and lives alone. He relates of having always been suspicious of people and their intent and feels that most people do not like him. He is a spasmodic drinker and denies the use of any drugs.

At this point, we'll ask Mrs. Chambers for any additional information she may have.

MRS. JEAN CHAMBERS, Psychiatric Social Worker: A visit was made to the

patient's 38 year old mother in her home, where the patient had lived until a few weeks prior to his coming to the clinic. The mother was pleasant, cooperative, and intelligent, and interested in her son. She related that the patient was born at home, by midwife, and weighed 11 lbs. at birth. He and his parents lived with the maternal grandparents. Three years later his parents moved to a home of their own, leaving the patient and two other siblings with the grandparents. The patient was a healthy baby, ate and slept well, with no known history of serious illnesses or accidents. He was considered slightly slower in development than the other children in the family. He was "different" also, in that he was quiet, easy-going, and nonaggressive. When he was 9 years of age, the patient's grandmother died; and he came to live with his parents, learning for the first time that his grandmother was not his real mother. Until this time, he had been told his natural mother was a sister. He had been greatly indulged by his grandmother, grieved for her after her death, found it difficult to share with the younger children who had been born to the parents, and refused to call his mother "mama," for which he was severely whipped by his father. From the sixth grade on, the patient had academic difficulty, finally dropping out of school after completing the tenth grade. He did have friends, dated some, and within the past year had gone with two girls. The first, a quiet, easy-going girl, he dropped. The second with whom he was in love, apparently did not return his affection, which is a source of great distress to him. He has recently been drinking excessively, causing his father to tell him to move out. This the patient did and subsequently has had little to do with his parents.

DR. HAYWORTH: Thank you, Mrs. Chambers. Now let's hear from Dr. Battle, our psychologist.

DR. ALLEN BATTLE, Clinical Psychologist: The patient was examined by means of the Rorschach technique and Bender Visual Motor Gestalt Test. He was reserved but cooperative and presented a rich record with much verbal elaboration. As to the result of the examinations, this is an individual who is severely

lacking in self-concept. He is desperately in need of human contact but finds himself reaching in vain for others. He tends to see himself as physically like a woman rather than a strong, burly male. He also has tendency regard himself as less than human and to be associated with those things which are weak and disgusting to other people. In the sexual sphere, he is likely to operate on the basis of his perception of himself as weak and clumsy. As a matter of fact, the patient's entire personality structure indicates this same hesitancy and fearfulness which he shows in the specific sexual area. At a deep symbolic level, it is likely that the patient finds females to be hard, ungiving, resistant individuals who do not fulfill their basic function unless forced by a man to do so. With his poor self-concept and feelings of inadequacy, that undertaking is totally beyond his capabilities. In overall perspective, the personality structure of this man is such as to affect his functioning far beyond the sexual sphere, which appears to be his presenting complaint. Actually the problem as seen on psychological examinations would affect his relationship with all people and certainly his own ability to wander freely within the confines of his own mind. There is no evidence of psychosis, but the personality structure is entirely in keeping with a psychoneurotic level of adjustment.

DR. HAYWORTH: Before continuing any further, we'll now bring the patient in and talk with him, then open the floor for discussion of the case.

Interview with the patient: The patient is a tall, somewhat thin Negro man, who continues to wear a small cap throughout the interview. His speech is soft, unsophisticated, heavy in dialect, but coherent and logical in progression. He has a superficial, anxious laugh, but there is some evidence of underlying depression. He talks briefly about his discomfort in the presence of women, and indicates he has always been afraid of girls. He also mentions that he can recall hating his father for the numerous beatings the father gave him as a child, of how he had never wanted to be like his father, and of how he had never been able to express any of these feelings to his father. By contrast, his mother was seen by

him as much kinder, more understanding, and at times protective of him. The specific area of the patient's sexual difficulty was purposely avoided in the interview situation.

DR. HAYWORTH: I think we have plenty of material here for a good discussion. Before going into the diagnostic and dynamic considerations in this particular patient, I would like to ask Dr. Akiskal to discuss the etiology of impotence in general, since premature ejaculation is, of course, one form of the latter.

DR. HAGOP AKISKAL, Resident in Psychiatry: Actually, this patient does present with a form of impotence, and our task is to determine whether this is symptomatic of another illness, or is it an illness in itself, an isolated psychosexual disturbance unrelated to any other psychiatric disorder. Impotence may be defined, for our purposes here, as the inability of the human to have orgasm with the penis in the vagina. Difficulties in this complex "psychoneural" process could occur at three possible levels:

- (1) Inability to start an erection, resulting in *total impotence*.

- (2) Inability to maintain an erection with varying degrees of potency, resulting in *premature ejaculation*.

- (3) Inability to terminate an erection with ejaculation, through maintaining a strong erection, resulting in *retarded ejaculation*. This category is quite rare. Most cases of impotence fit somewhere between the first and second categories as does our patient today.

Now, as to the general etiology of impotence, one must first attempt to rule out organic etiologies—neurological lesions and diabetes mellitus in particular. Physical exhaustion would be a reversible "organic" cause; here the pathogenesis is often compounded by psychosocial factors, e.g. financial worries.

Impotence may be one symptom of a serious mental disorder, with depression, especially the endogenous variety, being the cardinal example. Schizophrenia may also do the same. Other causes may be a frigid wife, fear of detection, fear of venereal diseases, fear of impregnating the girl, to mention some of the more common ones.

DR. HAYWORTH: With regards to this particular patient, it seems to me that we must consider this man's sexual inadequacy on a psychogenic basis, and that this basis is actually a composite of several factors. First of all, there are the obvious elements of feelings of inadequacy and anxiety. These two factors would seem to be the result of, first of all, a fear of failure, based on experience. Certainly from the history, we have ample evidence for making this assumption. This is, in effect then, a conditioned response which the patient has come to expect. Any comments about this point?

DR. AKISKAL: I agree. Our patient failed at the age of 14. Certainly this is not unusual for a youngster at that age having his first encounter with the art of love. In this case, the girl ridiculed him publicly and privately, thus compounding the psychopathology by humiliating his masculine ego in his peer group, the social setting in which he operated. He failed on that first attempt and the resultant humiliation, fear, and anger prevented future success. This negative reinforcement repeated over the years served to establish the neurosis, i.e. by conditioning. The repetitive pattern of failure has given rise to a tremendous amount of secondary anxiety, and a vicious cycle ensues. His only success was with an older woman. Perhaps this was because she was outside his world, outside the realm of humiliation. Apparently alcohol at that time facilitated his performance by its "uninhibiting" effect. However, more alcohol would suppress subcortical centers to the extent of almost total impotence, as our patient subsequently came to learn.

DR. HAYWORTH: In considering some of the other factors that are important in this case, I think there is sufficient evidence to indicate anxiety on the basis of a fear of being truly masculine in a sexual sense, for fear of injuring the woman. This patient's history is abundant in material to indicate an association by the patient of masculine sexual aggression with resultant injury and pain to the female partner. For example, he relates of overhearing his parents engaged in intercourse and of interpreting his mother's screams as indicative of pain and injury to her. He also had

a similar impression of his grandparents' sexual activity.

Also, I think we have sufficient material to indicate a genuine fear of being injured, i.e. castration anxiety, in association with sexual intercourse. Here I think the important factors are the fantasied incestuous desires of the patient and the fantasied retaliation by the father, who then, as we have seen, gave the patient ample realistic evidence of his retaliatory powers, which undoubtedly had a profound intraphysic impact on the patient. Another factor I would like to point out is the hostile, frustrating component of this patient's presenting symptom. Mother was apparently quite protective of the patient, and in being so, in effect, diminished his "manliness" even further. In addition, she was covertly, if not in fact, overtly, seductive with the patient. At the same time she was, of course, a forbidden sexual object. The hostility which would undoubtedly arise from these latter two features is now generalized to include all females, and I feel this is an important factor in the dynamics of this case.

DR. AKISKAL: I look at this patient's illness in two ways. First of all, his impotence may simply represent a conditioned neurosis, as has been discussed. Secondly, there are indications of neuroticism throughout his entire life, and it can be postulated that he had a "neurotic constitution" before his masculinity failed at age 14. The traumatic experience at that time fixated his anxiety in the sexual sphere, and the fear of sexual failure has accentuated and perpetuated an already existing neurosis.

Therefore, this is basically an insecure individual whose insecurity is manifested somatically at the sexual and gastrointestinal levels and psychologically as feelings of depression, worthlessness, and impaired masculine pride. I see his impotence as only a symptom, albeit the cardinal symptom of his illness.

DR. HAYWORTH: There are other important factors that should be considered. These include the negative identification with father, the blurring of identity and gender lines, over dependence on mother, and extremely poor masculine identification

in general. In addition, there is evidence of a rather schizoid and paranoid life adjustment. As has already been pointed out by Dr. Battle, basic to all of these features is an extremely poor self-concept.

Diagnostically, I think this patient fits best in the category of an anxiety neurosis in an inadequate personality. Now let's consider the treatment implications and possibilities with this patient. It is my opinion that he can respond to psychotherapy—psychotherapy that is oriented toward establishing a meaningful relationship with the patient first of all, and toward insight into the specific areas that have been outlined.

Dr. Fink, you probably have some recommendations as to the most effective means of treating a patient such as this one. Let's hear some of your views.

DR. ROBERT FINK, Resident in Psychiatry: In the treatment of this patient, the hope is that through a program designed at symptom relief, there will be a concomitant increase in self-esteem which will decrease his feelings of inadequacy and anxiety. I would doubt that a therapeutic relationship with the expectations of developing insight and working through a transference situation would be fruitful in this particular patient. Some of the more recent techniques which might be tried with this patient are based on implosive and behavioral methods.

In using the implosive method, as described by Kirchner, one would begin with the superficial acts which cause the anxiety. The therapist vividly describes this scene and works through the conflict on a four-stage level until he reaches the core conflict, which is on the most infantile level. In this case the therapist would begin to describe the scene of sexual intercourse, using the language and feelings of the patient. He would then continue his description until he would focus on the relationship of the patient and his father. The final descriptive scene would be patient mutilating his father's genitals and being the victor in the Oedipal conflict. These scenes are repeated by the therapist on a weekly basis, and the progress of the patient evaluated after about two months to see whether there is any effect on his sexual performance. The thera-

pist should be prepared to be laughed at (by patient and colleagues), but the efficacy of this approach has been shown in several cases. A desensitization technique often employed in treating phobias which has been used successfully by Wolpe and others might be helpful for this patient. In their procedure the woman is seen as the phobic object along with the act of successful fruition of sexual intercourse. The therapist would then describe this scene vividly, first having the patient imagine himself viewing a woman from a great distance and the sexual act in Lilliputian size. The patient is encouraged to verbalize this scene and begin to bring the image closer to himself and in life size. He is asked to repeat this procedure on several occasions with the hope of extinguishing the phobic response, thus lessening anxiety, and with the hope of improving performance. I would be inclined to use one of these methods with this patient.

DR. HAYWORTH: You might well be right. In the time that remains, let's hear from Dr. Hancock.

DR. HANCOCK, Associate Professor in Psychiatry: Dr. Akiskal has discussed impotence in an excellent manner, and some of the psychodynamics of the Oedipal situation have been mentioned. I would like to emphasize specifically the castration fear, which is quite prevalent in the causation of impotence. The history of this patient shows that the elements of castration fear have been played out over and over in the patient's life. He has had the experience of sleeping with mother, was quite close to her, and was punished severely by father on a reality level for not excelling in school or athletics. On an unconscious level, the patient might well feel that he was being punished for his incestuous feelings toward both his mother and grandmother. It is as if the patient's life script reads, "You cannot be successful until your father dies."

As far as treatment is concerned, my experience with drugs has not been successful. I have found intensive psychotherapy to be more practical. It is a well-known fact that the excessive use of alcohol may cause impotence. This patient drinks enough to get up the courage to approach a woman,

then drinks more, and is unable to perform any further. The same problems arise with the use of drugs, in that they may relieve anxiety but render the patient impotent on a pharmacological basis.

I think Dr. Hayworth is headed in the right direction in treating the patient, i.e. with insight-oriented psychotherapy, and I recommend that emphasis be placed on the patient's real and fantasied fears of his father. It will be interesting to see if the patient will remain in therapy long enough for the areas outlined today to be adequately evaluated and worked through.

Epilogue

It is interesting to note that following the Staff Conference at which this patient was presented, and which is reviewed herein, the patient failed to return for any subsequent appointments, and all attempts at contacting him were to no avail. This is indeed unfortunate, primarily because we can therefore only speculate as to his reasons for terminating therapy. Among the possible factors would be that the Staff Conference in itself was too overwhelming to the patient, or his performance there may have been perceived by him as another indication of his own inadequacy. He may have concluded that he was beyond help, since no new solutions were offered to him at that time, or he may have felt unworthy of all the effort being exerted in his behalf. On the other hand, he may have felt that therapy to that point (a total of six therapy hours) had been of no benefit to him and was, therefore, not worth the effort, or he may have found the developing transference situation in therapy too uncomfortable to continue any further. Other possible reasons exist for his discontinuing therapy, but those listed seem among the most likely.

This subsequent development, i.e. the termination of therapy, is mentioned only to point out that while the discussion and considerations given in this Staff Conference Report are theoretically sound and contribute to our understanding the patient, they are not always effective from the standpoint of providing a "cure" for the patient and raise the question as to other treatment modalities which may be more effective.

From the
Executive
Director
E. Ballentine

MEDICAL DIGEST

News of Interest to Doctors in Tennessee

SPECIAL—MEDICAID

PAYMENTS FOR MEDICAID UPPED . . . The State of Tennessee's Medicaid Advisory Committee has announced a revised reimbursement schedule of payments for physicians' services under the state Medicaid program that began on January 1, 1970 . . . Doctors will receive their usual and customary fees for office visits by Medicaid patients . . . Other services such as care in hospitals by physicians remain at the 50% level . . . Usual and customary charges are limited under the Federal law to the 75th percentile, but this level should cover practically all office visit charges in Tennessee. Payments for any services rendered by physicians other than office visits, remain at the level of 50% of usual and customary charges.

* * * * *

SUMMARY OF KEY ACTIONS OF AMA HOUSE OF DELEGATES

NUMEROUS ACTIONS TAKEN BY AMA HOUSE . . . From November 30 to December 3, 1969, the AMA House of Delegates acted upon 99 items of business . . . This included 22 reports from the Board of Trustees and 66 resolutions . . . One of the key items considered was a planning and development report accepted by the House . . . The House voted to establish an ad hoc committee on Long-Range Planning and Development and consisting of nine members. It will study and make recommendations concerning the structuring of and the charge to a permanent Committee on Long-Range Planning and Development, and report its recommendations to the House at the 1970 annual convention . . . The majority and minority reports will be forwarded to state and county medical associations for specific action by their governing bodies as they deem warranted.

* * * * *

MARIHUANA . . . The House adopted a policy statement calling marihuana a dangerous drug and a public health concern. The action stated that "the sale and possession of marihuana should not be legalized . . . If all controls on marihuana were eliminated, potent preparations would dominate the market, and if the potency were legally controlled, predictably there would be an illicit market for the more powerful forms—leading to more serious medical and social consequences. A more effective and continuing education program to all segments of the population on this subject was urged."

* * *

PRIVATE PRACTICE OF MEDICINE . . . The House took the following action to support private practice: "Whereas, the private practice of medicine is still believed to be the best method of serving mankind's medical needs; and there is no specifically designated method in organized medicine for the promotion of private practice; It is resolved that the House of Delegates establish a Committee on Private Practice, which shall consist of nine active members of the association to be constituted as a standing committee of the Council on Medical Service, a council of the AMA House of Delegates." The functions of the committee will be to encour-

age and promote the private practice of medicine and to help the private practitioner improve his method of providing medical care and the utilization of allies . . . Similar committees will be urged to the various state medical associations.

* * * * *

INSTITUTE FOR BIOMEDICAL RESEARCH . . . Reluctantly, the House took action to discontinue operation of the Institute for Biomedical Research. The action was taken as a result of the cost involved. The report acknowledged the multi-million dollar cost to AMA for maintenance and operation of the Institute and a change to another location, and the possibility of obtaining outside funds. Due to increasing costs and the lack of sufficient revenue to operate the Institute, it will be discontinued as soon as the Board of Directors of AMA-ERF can consummate the action.

* * * * *

MEDICINE AND GOVERNMENT . . . The House affirmed its support of the concept of regional medical programs as enacted in P.L. 89-239, and urged members to help guide regional medical programs in the tradition of the private practice of medicine . . . Expressed its "firm opposition to on-sight auditing in physicians' offices of tax-supported programs by representatives of governmental agencies" . . . Urged problems between physicians, intermediaries and governmental agencies be referred to local peer review committees.

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COST OF CARE . . . The House expressed deep concern about the increasing cost of hospital care service and urged joining with the American Hospital Association to develop and institute cost control measures for hospital services . . . Reaffirmed its endorsement of the tax credit plan and urged the Board of Trustees to give this plan the strongest support and the widest publicity among members of AMA and the public . . . Urged all state medical associations to submit realistic proposals which they believe could be developed as AMA proposals for effective and widely available medical care insurance or prepayment plans . . . Also in connection with cost, the House recognized that various news media and agencies of the Federal government routinely blame the medical profession for the rising cost of health care, including the AMA and private physicians . . . The media and agencies also use the erroneous expression "health care" when they should use the correct term "medical care."

* * * * *

OTHER ACTIONS OF THE HOUSE . . . Resolved to continue activities on matters of health in the practice of medicine by the American Medical Association in any liaison between federal officers, departments and agencies of the federal government . . . Opposed, in conjunction with other professional organizations, the Senate Finance Committee amendment which militates against professional corporations . . . Recommended a continuing study of trends of membership in the AMA in order to develop a realistic program to correct any cause which may result in a loss of potential physician members, and to carry forward an active recruitment effort for the continued strengthening of AMA . . . Adopted a resolution suggesting that educational opportunity for students, interns and residents not be limited to university hospitals, but "expose these trainees to the merits of practice under a variety of environmental circumstances" . . . Approved a report on professional liability that said "The feasibility of an AMA sponsored professional liability insurance program is now being considered by the Board of Trustees" . . . Reaffirmed present policy on therapeutic abortion while rejecting a resolution that urged revision of state laws to permit abortion upon demand.

Public Service

Communications Legislation

Hadley Williams, Public Service Director

AMA SUCCESSFULLY DEFENDS PHYSICIANS . . . Two legislative proposals which would have imposed inequities and hardships upon practicing physicians were eliminated through the efforts of AMA from the Tax Reform Bill. The Senate overwhelmingly defeated a Senate Finance Committee proposal which would have restricted tax benefits for members of professional corporations setting aside tax-deferred funds for pension plans to the same \$2,500 tax deduction maximum than can be claimed under the Keogh law. Also eliminated was a move to require insurance carriers to report to HEW any aggregate payments of \$600 or more direct to patients for services of physicians and other providers of health services. Republican Senator Paul Fannin of Arizona was the sponsor of the amendment pertaining to the tax treatment of professional corporations. The matter is not dead, however, since the Treasury Department is expected to offer its recommendations on deferred-compensation plans later this year. Insurance carriers would have been required to spend millions to set up accounting systems for reporting sums paid to physicians even though there would be no practical way for insurance companies to determine whether monies paid direct to patients were subsequently paid to a physician.

* * * * *

TAX LAW REFORM AFFECTS AMA AND TMA . . . The newly enacted Tax Reform Law will require TMA and other non-profit organizations to pay tax on advertising income of medical journals and other publications for tax years beginning after December 31, 1969. The Treasury Department had issued regulations calling for taxes to be paid on advertising revenue for tax years beginning after December 13, 1967.

* * * * *

AMA JUDICIAL COUNCIL STUDYING HOSPITAL CORPORATIONS . . . The Judicial Council of the AMA is seeking information regarding physician ownership of stock in corporations operating profit-making hospitals. In response to questions of ethics and inquiries made by physicians, the Council has been studying specific examples of this type of arrangement for several months. Further impetus was given to the study at the AMA Clinical Convention in Denver when the House of Delegates referred to the Council a resolution proposing that it be declared "unwise, unethical and not in the public interest" for a physician to own stock in a proprietary hospital to which he admits his patients.

* * * * *

UTILIZATION SURVEY FINDINGS REPORTED . . . At a recent meeting of the American Public Health Association, a survey conducted by the Kansas Blue Cross-Blue Shield revealed that a comprehensive out-of-hospital

benefits program showed "there was no change in hospital in-patient utilization as a result of the experimental benefits." The eight-month study showed no significant over-all differences in utilization, although the study did note that "experimental benefits appear to have reduced medical admissions which resulted in stays of 10 days or less." The experimental benefits program included coverage of many services, such as physician's home and office services, not previously paid for, but did not extend to preventive medicine, dental and eye care and other services. The short period of time covered in the study may have had a major effect on the lack of positive results, and the researchers noted "as the backlog of pre-existing conditions are detected, the impact of such cases on hospital utilization should diminish."

* * * * *

MEDICARE PART "B" COSTS INCREASE . . . HEW Secretary Robert H. Finch has announced that the Part "B" premium will be increased to \$5.30 per month beginning July 1, 1970. The present \$4 rate, set in December 1968, is too low to cover costs during the current premium period and he noted that the special Medical Insurance Trust Fund is now drawing on its reserves. Finch pointed out that failure of Wilbur J. Cohen, former HEW secretary, to increase the premium rate last December in accordance with advice from social security actuaries has made it necessary to promulgate two increases at once. About half of the increase (64 cents) is needed to finance the program at the level of current operations. The other 66 cents of the \$1.30 increase in the monthly premium rate will be needed for the following purposes: 26 cents to cover an estimated increase of 6% in the level of physicians' fees; about 12 cents to cover an estimated 2% in the utilization of services; about 6 cents because the 50 deductible which a patient pays will be a smaller proportion of the total covered charges; and the remaining 22 cents to provide a 4% margin for contingencies. The Medicare law provides for annual review of the costs of the program and for adjustments to be made in order for the rate to be sufficient to cover all expenses incurred during each premium period.

* * * * *

TMA HOUSE OF DELEGATES MEMBERS RECEIVE REPORT . . . One of the most controversial reports in the history of the AMA will be mailed to each member of the TMA House of Delegates at the suggestion of TMA President-Elect Tom E. Nesbitt of Nashville. The 60-page report is commonly called the "Himmler Report" because the special committee which studied and made its sweeping proposals was headed by George Himmler, M.D. of New York. The report, which took some 17 months of study to complete, contains 18 groups of recommendations totaling 57 recommendations in all. One member of the 7-man committee, Dr. John H. Budd of Cleveland, Ohio, filed a minority report which offered 19 specific recommendations. A special reference committee was formed to hear the recommendations of the report at the Denver Clinical meeting. More than 40 persons appeared before the committee during a 3-hour session. The AMA House approved the establishment of an Ad Hoc Committee on Long Range Planning and Development and charged the committee with receiving the Himmler and minority reports, and was instructed to present recommendations for the structuring of a Permanent Committee for action of the AMA House in June, 1970 in Chicago. The reports are being forwarded to all component state societies for such specific action by their governing bodies as they deem warranted, it being understood that the resolutions so generated and all recommendations made in the reports of the Committee on Planning and Development will be considered at the AMA annual convention in June.

President's Page



FRANCIS H. COLE

Medical Schools throughout the country have lately been beset by the problems of education in general, and by specific difficulties related to their involvement in the health care system.

Rising costs, low appropriations, shrinking value of fixed endowments, markedly reduced federal funds, insatiable demands for academic excellence and medical care for the indigent—these are the factors that have brought 17 medical colleges in the United States to the brink of bankruptcy at a time when expanded capacity is needed to supply physicians to care for the population of the immediate future.

Our own University of Tennessee Medical College shares in these problems and has added a few of its own.

Transferring with promotion is a feature of the academic life. A school as large as the University of Tennessee Medical College requires many instructors, assistants, assistant and associate professors, and is a prime recruiting ground for other colleges. Entire departments in new schools have been staffed by able men from this university. The spread of labor union organizations to southern hospital employees has posed tremendous problems, complicated by the complex arrangement with the Memphis City Government and City of Memphis Hospitals. The Medical College faculty is swamped by the service needs of the huge population which traditionally looks to John Gaston Hospital for health care, and the bureaucratic jungle surrounding the Federal and State plans for assistance in the costs of these services has not yet been penetrated with any conspicuous success.

The Chancellor has resigned to enter other work, and Dean Callison is returning to medical practice after many years of devoted service to medical education in general and to the University in particular.

Despite all these vicissitudes, the school continues to produce excellent physicians. It is fully accredited by the recognized boards, and the post graduate training programs are stronger now than at any previous time.

The need for another State supported Medical College has been under consideration for several years. It is now being studied in depth by the Commission on Higher Education of the State of Tennessee. A new medical college will be a frightful expense, and will require years of preparation and faculty recruiting before it graduates the first physician.

We do not ever want to have two poverty stricken, poorly supported state medical colleges, forever flirting with academic probation and competing against each other for the tax dollars of our state. As physicians, we would do well to support the present University Medical Units financially as well as vocally. Most of the problems in the University of Tennessee at Memphis could be solved by money. A State appropriation equivalent per student to the average supplied by our surrounding states, would do wonders. After financial stability is achieved, and arrangements are made for the University to control its own teaching hospital, then talk about another medical college will be relevant.

Sincerely,

Francis H. Cole M.D.

President

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FEBRUARY, 1970

EDITORIAL

APPLICATION FOR AMA's MD RECOGNITION AWARD PROGRAM

Processing of many applications for the AMA's "Physician's Recognition Award" is being delayed because applicants are not sending the \$5 fee with their applications. About one-third of the 1,772 physicians whose applications were received during just one week in late autumn neglected to enclose checks for the fee, which partially covers costs involved in reviewing, evaluating and validating applications. Lack of sufficient information also has made it impossible to validate some applications.

Some physicians apparently misunderstand the intent of the Award, which is to encourage all physicians to continue their education on a regular basis. Many physicians have praised the program, but others have rejected it because they are under the false impression that it questions their professional or educational qualifications. Some

general practitioners mistakenly believe that the continuing medical education program required for membership in AAGP automatically makes them eligible for the AMA Award. Not so. One of the many differences is that only those courses listed in the Continuing Education Number of JAMA (first issue each August) are creditable. AAGP-accredited courses are determined by individual state chapters.

Application forms and a pamphlet outlining general requirements for the Physician's Recognition Award have been mailed to all U. S. physicians. Information required includes specific educational activity, sponsor, inclusive dates and credit hours. Completed forms should be returned to Department of Continuing Medical Education, AMA, 535 N. Dearborn St., Chicago, Ill. 60610.

The Awards program was approved by the AMA House of Delegates in 1968; it is open to all physicians in the U. S. without regard to citizenship or AMA membership. An applicant with a medical degree from a foreign school may be considered if he is fully licensed to practice medicine in a state, or is certified by the Educational Council for Foreign Medical Graduates.

A total of 150 credit hours is needed to be eligible for the Award.

(AMA Service Briefs)

IN MEMORIAM

Cocke, Edwin W., Sr., Memphis. Died December 15, 1969, Age 79. Graduate of University of Tennessee College of Medicine, 1911. Member of Memphis and Shelby County Medical Society.

Cox, John E., Memphis. Died December 16, 1969, Age 74. Graduate of University of Tennessee College of Medicine, 1919. Member of Memphis and Shelby County Medical Society.

Ogle, L. Curtis, Memphis. Died December 17, 1969, Age 51. Graduate of University of Tennessee College of Medicine, 1942. Member of Memphis and Shelby County Medical Society.

Price, Julian G., Dyersburg. Died January 1, 1970, Age 84. Graduate of Memphis College of Physicians and Surgeons, 1908. Member of Northwest Academy of Medicine.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES



New Members

The Journal takes the opportunity to welcome these new Tennessee Medical Association Members.

MEMPHIS-SHELBY COUNTY MEDICAL SOCIETY

James H. Boring, M.D., Bartlett
Robert Paul Dobbie, Jr., M.D., Memphis
Barry Elmo Gerald, M.D., Memphis
Robert L. Richardson, M.D., Memphis

Knoxville Academy of Medicine

Dr. Francis Cole, President of the Tennessee Medical Association, addressed the Knoxville Academy of Medicine at its January meeting. Dr. Cole discussed the recent developments in Medicaid and the organizational structure of TMA and AMA.

During the business session, Dr. Robert E. Dougherty was appointed to fill the unexpired term of Dr. Robert Whittaker on the Executive Committee. The Academy also endorsed, in principle, the efforts of the Academy's Subcommittee on Rehabilitation to develop in cooperation with the Child Development Center a "Human Development Center" and directed the Committee on Constitution and By-Laws to proceed to develop recommendations for By-Law changes pursuant to efforts of the Ad Hoc Committee on Post-Graduate Education.

Wilson County Medical Society

The following were elected as officers of the Wilson County Medical Society for 1970:

President: R. C. Kash, M.D.
Vice President: James P. Leathers, M.D.
Secretary-Treasurer: T. R. Puryear, M.D.

Dr. Puryear was also elected as Delegate to the Tennessee Medical Association's House of Delegates and Dr. James C. Bradshaw, Jr. was elected as Alternate Delegate.

Nashville Academy of Medicine Davidson County Medical Society

The Nashville Academy of Medicine has voted to establish an affiliate membership category. The following paragraph, taken from the

Academy's By-Laws, defines membership in this category:

"Affiliate members are qualified physicians residing in the community but not licensed to practice medicine in Tennessee, and who may desire to associate themselves with the medical community. Such a physician may apply for Affiliate membership by: providing evidence of graduation from a reputable medical school; submitting letters of recommendation from two Academy members; being personally interviewed by an Academy Board member; paying half the annual Academy dues. Affiliate membership shall be limited to six years, during which time a non-citizen could become a citizen and obtain his Tennessee medical license. An Affiliate member may not vote, hold office, or have floor privileges at meetings. He is eligible for such similar Tennessee Medical Association and American Medical Association memberships as may exist."

At the recent annual meeting of the Academy, Dr. C. Gordon Peerman presented TMA's 50 year pins to Drs. William R. Cate, Horace Gayden, Anna Bowie, and Robert Warner. As all of these physicians received their medical degree in 1920, this year represents 50 years in the medical profession.

NATIONAL NEWS

The Month In Washington (From Washington Office, AMA)

The Internal Revenue Service postponed until next Jan. 1 one provision of a new requirement that health insurance companies report to the IRS payments of \$600 or more a year to a physician.

The delayed provision covers payments other than under medicare and medicaid. Payments of \$600 or more under these government programs must be reported to the IRS. A spokesman said the reporting of payments other than under the government programs was delayed for a year to allow further time for working out compliance procedures.

The IRS regulation applies only to direct payments to physicians. The Senate added an amendment to an omnibus tax bill that would have extended the requirement to indirect payments also. But House-Senate conferees took out the amendment.

Another provision unfavorable to physicians was knocked out of the tax bill, but a third was retained.

The Senate rejected a proposal that would

Doctor, after all we've been through together...

abscess
acne
amebiasis
anthrax
bacillary dysentery
bartonellosis
bronchitis
bronchopulmonary
infection

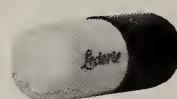
brucellosis
chancroid
diphtheria
endocarditis
genitourinary
infections
gonorrhea
granuloma inguinale
listeriosis
lymphogranuloma

mixed bacterial
infection
osteomyelitis
otitis
pertussis
pharyngitis
pneumonia
psittacosis
pyelonephritis

Rocky Mountain
spotted fever
scarlet fever
septicemias
sinusitis
soft tissue infection
tonsillitis
tularemia
typhus fever
urethritis

...don't you think it's time
we were on a first-name basis?

call me "Achro[®]V"



Every pharmacist knows ACHRO[®] V stands for ACHROMYCIN[®] V

Contraindications: Hypersensitivity to tetracycline.

Warning: In renal impairment, since liver toxicity is possible, lower doses are indicated; during prolonged therapy consider serum level determinations. Photodynamic reaction to sunlight may occur in hypersensitive persons. Photosensitive individuals should avoid exposure; discontinue treatment if skin discomfort occurs.

Precautions: Nonsusceptible organisms

may overgrow; treat superinfection appropriately. Tetracycline may form a stable calcium complex in bone-forming tissue and may cause dental staining during tooth development (last half of pregnancy, neonatal period, infancy, early childhood).

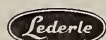
Adverse Reactions: *Gastrointestinal*—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. *Skin*—maculopapular and erythematous rashes; exfoliative

dermatitis; photosensitivity; onycholysis, nail discoloration. *Kidney*—dose-related rise in BUN.

Hypersensitivity reactions—urticaria, angioneurotic edema, anaphylaxis.

Intracranial—bulging fontanel in young infants. *Teeth*—yellow-brown staining; enamel hypoplasia. *Blood*—anemia, thrombocytopenic purpura, neutropenia, eosinophilia. *Liver*—cholestasis at high dosage. Upon adverse reaction, stop medication and treat appropriately.

Achromycin[®] V Tetracycline



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have restricted the tax advantages gained by physicians who organize professional corporations under state laws to establish retirement plans. The Senate Finance Committee had added an amendment that would have set an annual limit of \$2,500 per individual, the same as specified under the so-called Keogh law. But the Senate, by a vote of 65-25, knocked out the amendment, leaving physicians, lawyers, engineers and other members of professional corporations able to set aside as much of their income for retirement as they choose.

As finally passed by Congress, the measure includes a provision putting congressional approval on an IRS ruling that advertising revenue of medical and other non-profit, tax-exempt organizations is subject to the regular corporate income tax. Journals of state medical societies, as well as the Journal of the American Medical Association, are affected.

* * *

Medicare's Part B premium partially covering physicians' fees will go up from \$4 to \$5.30 a month next July 1.

Health, Education and Welfare Secretary Robert H. Finch blamed his predecessor in the post, Wilbur J. Cohen, for the size of the 32 percent increase in the premium which is matched by the federal government.

Finch noted that the present \$4 premium rate, set in December 1968, was too low to cover costs during the current premium period and that the special Medical Insurance Trust Fund has been drawing on its reserves. He said that failure to increase the premium rate last December, in accordance with advice from Social Security Administration actuaries had made it necessary now, in effect, to promulgate two increases at once. Moreover, the depletion of the trust fund that has occurred because of the inadequate rate had made it necessary, he said, to provide for a somewhat higher margin of contingency than would otherwise be necessary.

About half the increase, 64 cents, was needed to finance the program at the level of current operations. The other 66 cents of the \$1.30 increase was distributed:

—26 cents to cover an estimated increase

of about 6 percent in the level of physicians' fees;

—about 12 cents to cover an estimated increase of 2 percent in the utilization of services under the program;

—about 6 cents because of the \$50 deductible which a patient pays will be a smaller proportion of the total covered charges;

—the remaining 22 cents to provide a 4 percent margin for contingencies.

* * *

President Nixon signed into law legislation setting tough federal safety standards for coal mines.

Although he had reservations about a conflict with state workmen's compensation laws, Nixon said "the health and safety provisions of this act represent an historic advance in industrial practices." He also cautioned that this law should in no way "be considered a precedent for future federal administration of workmen's compensation programs."

The Secretary of Health, Education and Welfare was given for the first time authority to set health standards for mines. Nixon said he had asked that wherever possible the disability standards under the new act be consistent with those of the Social Security disability program.

Pressure for the legislation started building up after 78 died in a Mannington, W. Va., mine disaster last November.

The AMA supported an overall Administration bill on occupational health and safety, and pledged the backing of the nation's physicians for any program "well designed to improve the safety and health of the American worker."

Dr. R. Lomax Wells, Silver Spring, Md., immediate past chairman of the AMA's Council on Occupational Health, told a Senate labor subcommittee:

"... the American Medical Association supports the new Administration bill, S. 2788. Its provisions for standard setting, not in the Labor Department but in a new National Occupational Safety and Health Board appointed by the President, with a majority of professional experts, seems to us an acceptable equivalent to our previous suggestion of a National Council on Hazardous Physical and Chemical Agents. We endorse its concept of a separation of

powers between standard setting and enforcement. We welcome, in this new bill, the intent to give a larger role to the Department of Health, Education and Welfare, whose competence in this field is recognized. Our Association approves the provision for federal support of state occupational safety and health programs to supplement inadequate manpower in the federal system. We believe that this emphasis on support of the state programs, combined with standard setting by an independent professional Board, is greatly preferable to mandatory national standards promulgated and enforced by a single federal agency. In this regard, we welcome the stress on the use of consensus standards, and provisions for consultation with professional standard-setting agencies before establishing needed new standards."

* * *

A National Heart and Lung Institute task force predicted that the demand for heart transplants will increase beyond the present level of about 100 a year and exceed the number of the organs available for the operation.

The report of the task force on cardiac replacement also said:

—Less than 16 percent of the 200,000 Americans under 65 who die each year from heart disease are good candidates for transplants.

—Rejection of the transplanted heart will remain "the greatest barrier to prolonged survival."

—Development of an artificial heart is now a distinct possibility.

—The federal government should emphasize research on the prevention, early detection and early treatment of heart disease.

—A new definition of death is needed.

—Total transplant charges for 36 patients averaged \$18,694 per patient.

—Heart transplants have been performed on 148 patients, with 23 persons still surviving, 16 of them in the United States.

—More than 32,000 heart disease victims can be considered transplant candidates, but there are only about 22,000 possible donors a year, the report said.

* * *

The Food and Drug Administration was

reorganized and given independent status under a new commissioner.

The reorganization followed several years of criticism of the Health, Education and Welfare Department agency from all sides—Congress, industry and consumers' groups. The criticism resulted in a two-month study by a task force headed by HEW Deputy Assistant Secretary for Welfare Fred Malek.

The reorganization focused on FDA's structural problems and the chief aim of HEW Secretary Robert H. Finch appeared to be to get the agency operating more efficiently. FDA was taken out of the Consumer Protection and Environmental Health Service and placed in the department's staff structure on an equal basis with the remaining Environmental Health Service and the National Institutes of Health.

Dr. Charles C. Edwards, 46, formerly a division director on the American Medical Association headquarters staff, was named to replace Dr. Herbert L. Ley, Jr., as head of the FDA. Ley was offered another post in HEW but declined it. Two of Ley's top aides, FDA Deputy Commissioner Winton B. Rankin and Associate Commissioner for Compliance J. Kenneth Kirk, were transferred from the agency.

Edwards was praised by a former associate on the AMA staff, C. Joseph Stetler, president of the Pharmaceutical Association, as being highly qualified by his scientific and administrative background.

The new FDA head said he would bring "hard-nosed management principles" to the agency and work more closely with industry, but that his administration of FDA would be oriented to the consumer. He said his decisions as a government official will not be influenced by his former association with the AMA.

MEDICAL NEWS IN TENNESSEE

The University of Tennessee Medical Units

Dr. Maston K. Callison, Dean of the University of Tennessee Medical Units, has resigned, effective July 1, 1970 to resume private practice.

Dr. Callison said, "This is a decision I have long been debating for some weeks. It re-

sults from both a personal desire to return to the private practice of medicine, as well as a realization that some important goals which I had set for the College of Medicine obviously face further delay.

"I have been Dean of the College for 12 years and, although important developments have taken place during this time, much remains to be done to achieve optimal faculty development and the maintenance of high standards of student teaching and patient service. I am confident that the needed developments will ultimately take place, but for personal and family reasons I do not feel that I should continue in this responsibility."

Dr. Callison, who will be 53 in January, is a graduate of the University of Tennessee. After Intern and Resident training, he served in the Army Medical Corps until 1947 when he was discharged as a captain. He began private practice as an Internist and continued until his appointment as Dean at the UT Medical Units.

* * *

William F. Bowld, a retired businessman and former member of the Memphis Hospital Board, donated \$50,000 to the University of Tennessee, earmarked for the College of Medicine, in honor of Dean M. K. Callison, who recently resigned.

The announcement was made at a party given by the Florida Chapter of the University of Tennessee General Alumni Association in Jacksonville, Florida during the Gator Bowl festivities.

Bowld, former Vice-President and General Manager of a subsidiary of Procter & Gamble, served on the Board of the City of Memphis Hospitals for 25 years, most of the time as Chairman. The city's relatively new William F. Bowld Hospital is named in his honor.

University of Tennessee Memorial Hospital

The second annual Willis F. Kraemer Memorial Lecture will be given on Tuesday evening, March 24. This lectureship is in memory of Dr. Willis F. Kraemer who was the first radiologist at the University of Tennessee Hospital and who came to an untimely death at the age of 53 on June 6, 1968. His vast educational background has been an inspiration to his stu-

dents and those who follow. The essayist of the evening will be Dr. William L. Caldwell, Associate Professor and Director of Radiotherapy at Vanderbilt University Hospital. The memorial lectureship will coincide with the opening of the new X-Ray Therapy Department at the University of Tennessee Memorial Research Center and Hospital.

Vanderbilt University School of Medicine

Dr. John A. Oates, Professor of Medicine and Pharmacology and Director of the Division of Clinical Pharmacology at the Vanderbilt University School of Medicine, is the author of one of seven articles on the pharmaceutical industry in the December 29 special issue of MODERN MEDICINE.

Appearing in the medical journal as a "Symposium on Pharmaceuticals from Test Tube to Patient," the articles present a comprehensive picture of the industry—its accomplishments, problems, plans and relationship with the medical profession. Dr. Oates' article in the Symposium, entitled "The Discipline of Clinical Pharmacology," points to the increasing need for people in this medical specialty, created by the continuing development of new and potent drugs.

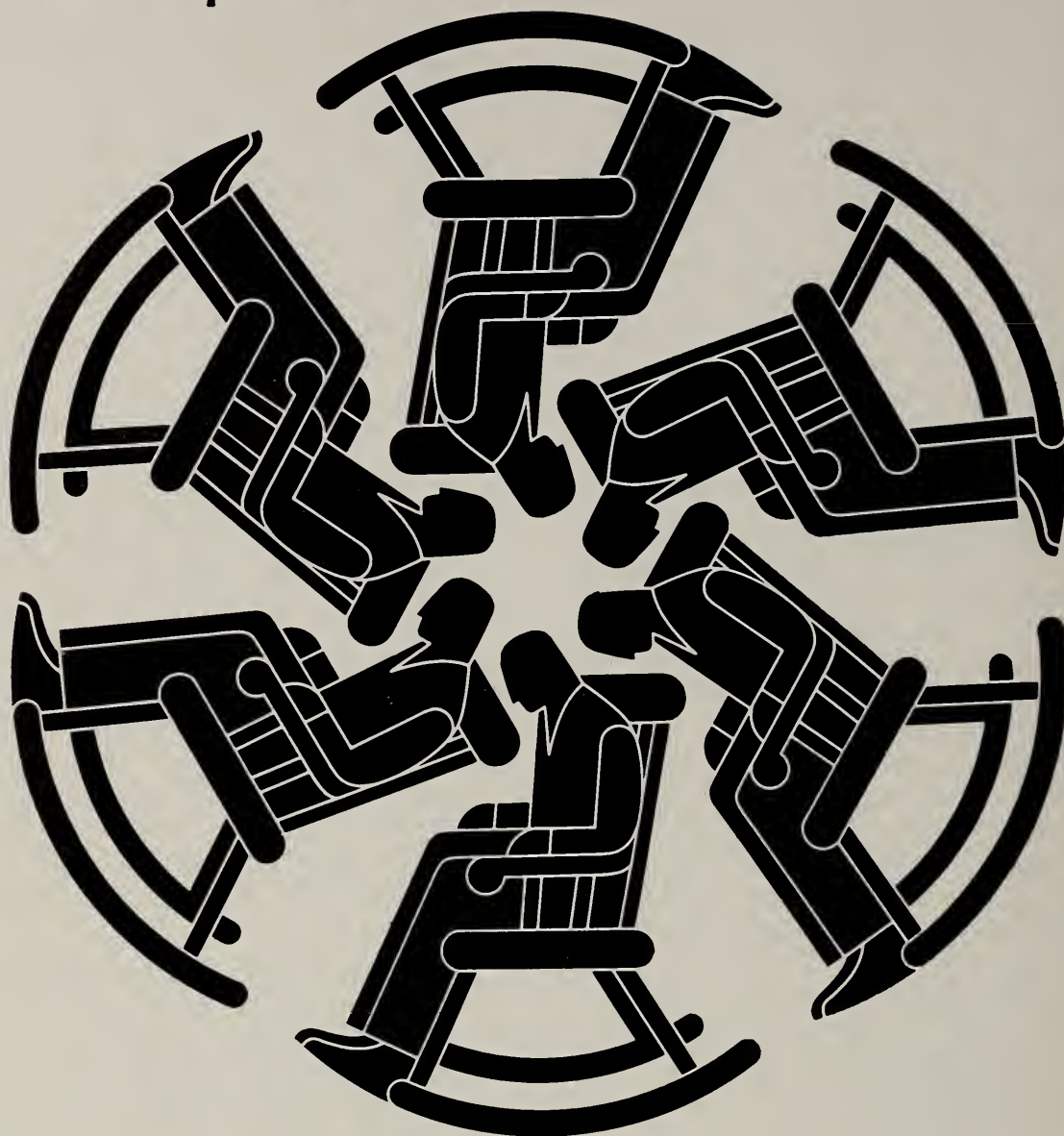
* * *

The Nutrition Study Section, Division of Research Grants, National Institutes of Health held a meeting on January 13 and 14, using the occasion to hold a Workshop on the Problems of Assessment and Alleviation of Malnutrition in the United States. The Workshop was planned to honor the late William N. Pearson, Ph.D., a member of the Nutrition Study Section and Professor of Biochemistry. A number of the Nation's investigators in the field of nutrition who appeared on the program, as well as Chancellor Alexander Heard, dinner speaker, paid tribute to the research contributions of Dr. Pearson in his biochemical studies of the vitamins, work which has clinical application in the practice of medicine.

* * *

The twentieth volume of the *Surgical Forum*, published by the American College of Surgeons was dedicated to Dr. William Scott who served as Chairman of the Forum from 1965 to 1968.

for the debilitated
geriatric patient



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b.i.d. dosage

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no odor, and virtually no aftertaste

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Riboflavin	15 mg
Pyridoxine HCl	5 mg
Niacinamide	100 mg
Calcium pantothenate	20 mg
Cyanocobalamin	5 mcg
Folic acid	0.5 mg
Ascorbic acid	500 mg

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Indications: Nutritional supplementation in conditions in which water-soluble vitamins are required prophylactically or therapeutically.

Warning: Not intended for treatment of pernicious anemia or other primary or secondary anemias. Neurologic involvement may develop or progress, despite temporary remission of anemia, in patients with pernicious anemia who receive more than 0.1 mg of folic acid per day and who are inadequately treated with vitamin B₁₂.

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An annual Leonard W. Edwards Memorial Lecture in Surgery has been established in the Department of Surgery. The first lecture in memory of the late Dr. Edwards will be given on March 27 by Dr. Lester Dragstedt.

* * *

Dr. Steven Schenker has accepted a position as head of the division of gastroenterology, Department of Medicine. He will come to Vanderbilt this summer from the Department of Internal Medicine, the University of Texas Southwestern Medical School, Dallas. A John and Mary Markle Scholar in academic medicine from 1963 until 1968, he has been a clinical associate at the National Institute of Allergy and Infectious Diseases, a research fellow in medicine at Thorndike Memorial Laboratory, Harvard Medical School and assistant professor of medicine at Cincinnati College of Medicine.

New Director Named for Comprehensive Health Planning

Michael T. Bruner has been named Director of the Tennessee office of Comprehensive Health Planning, succeeding Dr. H. P. Hopkins, who becomes Director of Planning and Development for the Department of Public Health. Mr. Bruner, formerly Associate Director of the Mid-South Medical Center Council for Comprehensive Health Planning in Memphis, assumed the position on February 1.

PERSONAL NEWS

The following TMA members were appointed/reappointed to Councils and Committees of the AMA Board of Trustees in December: **Dr. Allen D. Bass**, Nashville, reappointed to Council on Drugs; **Dr. William J. Darby**, Nashville, reappointed to the Council on Foods and Nutrition; **Dr. Julian C. Lentz, Jr.**, Maryville, appointed to the council on Rural Health; **Dr. A. Roy Tyrer, Jr.**, Memphis, reappointed to the Council on Voluntary Health Agencies; **Dr. Bland Cannon**, Memphis, reappointed to the Committee on Continuing Medical Education (representing Council on Medical Education); and **Dr. Charles C. Smeltzer**, Knoxville, reappointed to the Liaison Committee to the American Bar Association.

The following two physicians will serve on AMA House of Delegates Committees: **Dr. Tom E. Nesbitt**, Nashville, Committee on Private Practice, and **Dr. John H. Burkhart**, Knoxville, Committee on Health Care of the Poor.

Dr. J. L. Herrington, Jr., of the Edwards-Eve Clinic in Nashville, was recently elected President-Elect of the Nashville Surgical Society. He was also elected to membership in the Western Surgical Association at the 1969 meeting in Dallas, Texas.

Dr. Sidney S. Whitaker, Bristol, was featured speaker at the Annual March of Dimes Kickoff Dinner on December 29.

Dr. John H. Griscom, Nashville, spoke to the Nashville Exchange Club on December 30 on the subject "The Current Drug Scene." Dr. Griscom discussed the reasons why young people are turning to drugs and pending legislation which he thinks will provide better control of the situation.

Dr. Chesley H. Hill, Troy, has been named to the Board of Directors of the Freed-Hardeman College.

Dr. William P. Hardy, Oak Ridge, has been selected by the American Academy of Pediatrics to serve as a Head Start consultant in Tennessee.

Dr. William H. Gardner, Knoxville, was elected Chief of the Medical staff at Presbyterian Hospital for 1970.

Dr. Harwell Wilson, Chairman of the University of Tennessee Department of Surgery, was elected President of the Southern Surgical Association at the Annual Meeting in Hot Springs, Virginia. Dr. Wilson is Past-President of the Southeastern Surgical Congress.

Dr. Lloyd V. Crawford, Memphis, was elected Secretary of the Section on Allergy of the Southern Medical Association for 1970. Also elected to SMA positions were **Dr. J. T. Francisco**, Memphis, Vice-Chairman of the Section on Pathology, and **Dr. Charles E. Wells**, Nashville, Secretary of the Section on Neurology and Psychiatry.

Dr. Robert N. Buchanan, Jr., Nashville, has been elected President of the Association of Professors of Dermatology as well as a member of the Board of Directors of the American Academy of Dermatology.

Dr. Fred Goldner, Jr., Nashville, took part in a seminar at the Mount Carmel Mercy Hospital, Detroit, on "Counseling the Cardiac on Work and Sex."

Dr. R. H. Kampmeier, Nashville, received the Distinguished Service Award of the Southern Medical Association at its Annual Session in Atlanta this past November.

Dr. H. David Hall, Nashville, has returned from a two-month voluntary tour of service aboard the *S. S. Hope*.

Dr. Joseph A. Little, Nashville, has moved to Shreveport, Louisiana as Professor and Chairman of the Department of Pediatrics at the new Louisiana State University Medical School.

BOOK REVIEW

HANDBOOK OF PEDIATRIC CARDIOLOGY. By Jerome Krovetz, M.D., Ira H. Gessner, M.D. and Gerold L. Schiebler, M.D., University of Florida College of Medicine, Gainesville. 371 pages. New York: Harper & Rowe, Hoeber Med. Division, 1969.

This book, by three members of the Department of Pediatrics of the University of Florida College of Medicine, grew out of a series of lectures presented at one of the two-day seminars during the annual meeting of the American Academy of Pediatrics in October 1963. The authors' aim is to emphasize the fundamentals of pediatric cardiology and the salient aspects of the more common disease entities with no attempt to review rare anomalies.

It is divided into two parts. Part one, made up of 11 chapters and 168 pages, is entitled "General Considerations." Included are brief reviews of the anatomy and embryology of the heart, physiologic aspects of heart disease, and diagnostic approaches, including electrocardiography and selection of patients for catheterization and angiocardiology. The sections entitled "Experimental Production of Congenital Heart Defects" and "Genetics and Cardiac Anomalies" are worthy additions.

The second part, which numbers 372 pages, is entitled "Specific Entities" and includes a discussion of the more common congenital and acquired disorders affecting infants, children and adolescents. The last chapter is made up of tables comparing the pertinent diagnostic features of some of the more common types of congenital heart disease.

There are several excellent reference books on pediatric cardiology. This small book cannot be regarded as a major reference, but will be useful for medical students, general physicians, and pediatricians looking for an overview of pediatric cardiology.

ANNOUNCEMENTS

Calendar of Meetings, 1970

State

- | | |
|------------|--|
| April 9-11 | Tennessee Medical Association, Sheraton-Peabody Hotel, Memphis |
| May 26-29 | Mid-South Medical Association, Holiday Inn-Rivermont, Memphis |

National

- | | |
|-----------------|--|
| Feb. 25-March 1 | American College of Cardiology, Rivergate Hotel, New Orleans |
| March 8-10 | Atlanta Graduate Medical As- |

March 20-21

sembly, Marriott Motor Hotel, Atlanta

April 9-10

AMA National Conference on Socio-Economics of Health Care (Fourth), Palmer House, Chicago

April 10-12

National Conference on Rural Health (23rd), Pfister Hotel & Tower, Milwaukee

April 12-17

American Society of Internal Medicine, Warwick Hotel, Philadelphia

April 12-18

American College of Physicians, Bellevue-Stratford Hotel, Philadelphia

April 13-16

American College of Obstetricians and Gynecologists, Americana Hotel, New York

April 27-May 2

American Academy of Pediatrics, The Washington Hilton, Washington, D.C.

May 4-5

American Academy of Neurology, Americana Hotel, Miami Beach

May 4-5

American Cancer Society's 12th Annual Cancer Seminar, Frontier Hotel, Las Vegas, Nevada

May 10-14

AMA Congress on Environmental Health, Statler-Hilton Hotel, Washington, D.C.

May 11-15

American Urological Association, Bellevue-Stratford Hotel, Philadelphia

May 20-23

American Psychiatric Association, San Francisco

May 24-27

American Gastroenterological Association, Sheraton-Boston, Boston

May 25-27

American Thoracic Society, Sheraton Cleveland

May 28-30

American Gynecological Society, The Homestead, Hot Springs, Va.

American Ophthalmological Society, The Homestead, Hot Springs, Va.

University of Tennessee

Continuing Education Courses Announced

The Division of Continuing Education and Conferences of the University of Tennessee Medical Units in Memphis has announced two continuing education courses to be held in the near future. The Leigh Buring Memorial First Annual Conference on "Significant Medical Problems of Childhood" will be held March 4-6, 1970 and a course entitled "Intensive Review of the Science of Anesthesiology" will be held May 25 through 29, 1970.

As a part of a Memorial to Leigh Buring, 1969 Poster Girl for the Tennessee Arthritis Associa-

tion, the University of Tennessee Child Development Center will conduct the First Annual Leigh Buring Memorial Conference. The conference is designed to acquaint the members of the health professions with current medical thinking concerning common but significant problems of childhood. The program will be presented by faculty members from the departments of the University of Tennessee College of Medicine and the University of Tennessee Child Development Center. The program is acceptable for prescribed hours by the AAGP and will be held at the Wassell Randolph Student Center, 800 Madison Avenue, in Memphis.

The Anesthesiology course, in the clinical context, is designed to offer an intensive review of the basic sciences related to anesthesiology. All applicants are urged to review as much of the basic and clinical science material as possible prior to taking the course. The methods of instruction will be by lectures, panel discussions, and questions and answers; ample opportunity will be provided, throughout the program, for a discussion between the faculty and the participants. The following subjects are included in the program:

1. General Anesthetic Drugs
2. Neurophysiology as Related to Anesthesia
3. Circulatory Physiology
4. Pharmacology of the Circulation
5. Respiratory Physiology
6. Acid-Base Regulation
7. Cellular Biology
8. Steroids
9. Liver and Kidney
10. Autonomic and Neuromuscular Physiology and Pharmacology
11. Adjuvant Drugs in Anesthesia
12. Complications of Anesthesia

The course will be held at the Pharmacy Auditorium, 874 Union Avenue, in Memphis. For information regarding registration, please write to: Division of Continuing Education and Conferences, The University of Tennessee Medical Units, 62 South Dunlap Street, Memphis, Tennessee 38103.

Three ACP Courses To Be Held in March

In March, the American College of Physicians will present the following Post-graduate courses:

- | | |
|-------------------|---|
| March 9-13, 1970 | "Cardiovascular and Renal Disease: Pathophysiology and Pharmacology"; Presbyterian-St. Luke's Hospital, Chicago |
| March 16-20, 1970 | "Clinical Problems in Internal Medicine"; Cleveland Clinic, Cleveland, Ohio |
| March 23-26, 1970 | "Neurology and the Internist"; Mayo Clinic and Mayo Graduate School of Medicine, Rochester, Minnesota |

Community Health Centers Urged by AAP

The American Academy of Pediatrics has called for the selection and establishment of several community health centers throughout North, Middle and South America to train and develop personnel, and test programs designed to reduce infant mortality.

In a statement in the November issue of the AAP Journal, *Pediatrics*, the Academy's Committee on International Child Health, called for the network of health centers to "perfect methods which identify, reduce, and ultimately help prevent the avoidable illnesses and nutritional deficiencies which lead to death. Such methods include family planning."

The Academy further recommended that the United States government, in conjunction with the Pan-American Health Organization, support the study of techniques and methods of research, training, and evaluation in such health centers.

The AAP indicated that the experience derived from such a study would strengthen the ability of the United States to solve its own problems, help the U.S. meet its obligations to foreign graduates who staff its domestic programs, and assist all the nations of the Americas in meeting the health needs of their children.

The AAP statement pointed to the excessive and avoidable child death and disability which continue to occur in North, Middle, and South America. Also noteworthy, the Academy statement revealed that slum areas within several urban counties in the United States frequently exhibit infant mortality rates "two or three times as high as those of more privileged areas of society, and as high as those of some Latin American cities."

The proposed network of health centers, urban and rural, in which research and training would be supported to reduce such high rates of infant mortality, should be chosen from areas where infant mortality is excessive, where the community and its political action groups want to do something about it, and where a university medical center is anxious to be actively involved, the AAP Committee on International Child Health emphasized.

The objectives, program development and operations of the health centers would include five common elements. They are:

- An initial study of the target area to be served, its people, problems and resources.
- The delivery of personal services on the basis of teams which include community representatives in addition to the usual members of the health professions.
- Evaluation mechanisms which provide feedback appraising successes or failures of program developments
- Supervised participation of undergraduate and postgraduate students of the health and health-

related professions in relevant aspects of program development and operations.

- An effective system of intercommunication among the centers, a crucial component of which would be the active exchange of personnel in training and of teaching and research staffs.

Hospital Accreditation Workshop

The Tennessee Hospital Association is sponsoring an Accreditation Workshop at Baptist

Hospital in Nashville on March 6. This conference will run from 9:00 a.m. to 4:00 p.m. The workshop will be conducted by Dr. Otto Arndal, Assistant Commissioner of the Joint Commission on Accreditation of Hospitals. The purpose of the workshop is to review and give interpretations to the new standards. Registration fee is \$5.00 per person.

THA hopes that every hospital will encourage representatives from the medical staff to be present for this workshop.

* * *

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* * *

Mackenzie, Sir James. *Angina Pectoris*. London, England, Henry Frowde and Hodder & Stoughton, 1923. p. 83.

There is a kind of illness which begins abruptly producing a number of signs, and speedily abates, which is described as an "attack." The symptoms are varied, depending upon the organs whose functions are interfered with. The attack may produce a number of symptoms, such as a feeling of great exhaustion, nausea, depression of the heart's action, and sweating. The source of the attack may not be perceived unless some localizing symptom is present, as pain, or cutaneous hyperalgesia . . .

A frequent accompaniment of the attacks of pain is a sense of compression or of constriction or of weight over the chest. Indeed, this sense of contraction may cause more distress and alarm

to the patient than the pain. A pain is sometimes spoken of as a "constricting" pain, and, like a "sickly" pain, is a combination of two distinct sensations; a sickly pain being a pain associated with nausea, while a constricting pain is a pain associated with a sense of constriction. These two sensations are quite distinct, and we may have one without the other . . .

Accompanying the attack of pain there is often a great sense of depression or oppression, and the peculiar sensation as if death were impending. This is sometimes spoken of as a sense of dissolution. The sensation is not limited to attacks of angina pectoris, because we get it in other conditions, as in attacks of auricular flutter, renal colic, etc.

(Historical note—abstracted for the Middle Tennessee Heart Association, Jean Roughgarden, M.D., Nashville).

T M A

THE VIEWING BOX

Let's Improve the Image

(Editorial)

At the risk of suspicion as to literary taste, let me quote a few lines from Robbie Burns, Scotland's greatest poet:

"O wad some Power the giftie gie us
To see oursels as ithers see us!
It wad frae mony a blunder free us
An foolish notion. . ."

It seems very likely that some of the blunders of organized medicine over the years, at all levels, might have been avoided if we had listened more and talked less. Too much of our conversation is among ourselves, and too much of our listening is to each other.

Because of this tendency toward ingrown discussion, we are often shocked to find intelligent and informed community leaders who either know little of our viewpoints, or knowing much disagree violently.

The lay public is not all-knowing about medical matters, but the percentage of jackasses among them is not much different than it is among us.

Not long ago a community group in Richmond County, Georgia held a discussion on medical matters, and a summary of observations appeared in the Medical Bulletin of the Richmond County Medical Society.

Here is a list:

- 1) The cost of medical care is high, probably too high, and going up.
- 2) Physicians' incomes are excessive and the difference in income between the physician and other scientific professions with advanced training is unjustifiable.
- 3) There are not enough physicians or paramedical personnel.
- 4) Medicine stifles competition by limiting numbers of newcomers, which then produces high fees. A corollary to this is a suspicion of an artificial restriction of entry into medical schools and the number of medical schools. Both suspicions are laid on the AMA doorstep.

- 5) Lay hospital boards are rubber stamps for the medical staff.
- 6) Physicians profit by long hospital stays of patients, which causes hospital bed shortages.
- 7) Medicare is being exploited by the physician.
- 8) Putting physicians on salaries would solve much of this.

The first reaction to this list is astonishment tinged with sadness. How could people be so wrong about little old us? Another reaction is that this is just another form of doctor-baiting that has gone on for centuries.

But let us deal with the facts. Are we to blame for the high cost of medical care? If so, are we doing anything about it. If not, then why haven't we gotten our explanations over to the public?

Are there other professions, equal in training to ours, wherein the financial returns are notably less? Again, if so, why aren't our explanations acceptable?

Are we doing all we can to increase the flow of young physicians, and of paramedical technicians? If so, why don't we speak up? If not, how do we improve matters?

This particular string of complaints is merely another one that says our image is tarnished around the edges. But it seems to me that it is the image of expectancy that is tarnished, not that of the doctor. Several studies show that the criticism of medicine, as a whole, are almost never applied to a person's own physician. That particular doctor is never blamed—it's always the "other doctors."

Since doctor-critics have been with us so long, they likely will be around quite a spell longer, and the barrage from newspapers, magazines, radio and television probably will not lift.

What remains then for us to undertake is a counter-barrage, since we can't stay in our

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foxholes forever. The counter-barrage of the individual physician is not going to do much, since he is already exempted from the fray. It must come from organized medicine at all levels—county, state and national, and must be an offensive barrage and not a defensive one.

A public relations program such as the AMA launched against Medicare is not the likely answer. This program must be on the local level. Public interest in medical matters is always at a high pitch. Furnishing local papers, radio and television stations with speakers and news releases is necessary. Having speakers available for every call for a speaker at a civic group meeting is a must.

But the county society cannot operate without the help of its members. If you hear a group that needs a speaker, say the medical society has speakers available. Then let the society know about it. If you see an offensive story in your local paper, tell us by mail or phone, as quickly as possible, so we can counter-attack. Be alert for chances to tell our story.

Not only need we see ourselves as others see us, but we need to tell others how we see ourselves. (*From PENNSYLVANIA MEDICINE, November 1969*)

The High Cost of Medical Care— Who IS Responsible? (Editorial)

Much has been written and much more has been said about the rapidly rising costs of medical care. Accusations have been hurled; demands have been made for tighter controls—cries of “abuse” and even “fraud” have been leveled against the medical profession. The medical profession has faced and must continue to face these charges, standing firm in denial when they are unfounded. Accurate recorded information to refute those charges which are untrue should be produced and whatever steps necessary taken to rectify errors.

It is also essential that the profession shall not allow total responsibility of cost to rest upon its shoulder. To do so allows to remain unchallenged and unchanged other persons and factors equally guilty, if not more so.

All purveyors of services must take immediate steps to correct inequities that they can control. Do not forget, however, that physicians, like all paramedical personnel, are victims of rising costs in overhead. Salaries, additional time spent upon countless forms, plus endless explanation of intricacies to recipients of government-sponsored programs, require additional personnel. Help, of course, must be trained in clerical responsibilities never before necessary. Furthermore, imposition of minimum wage controls has hit the individual physicians who spend much time training and instructing the new employees. Incidentally, the training is worth many dollars to those employees. The hospitals are also heavily hit by loss of that vast reservoir of young people heretofore willing to serve “apprenticeships,” but who now must be paid the minimum wage.

Let us probe also other forces outside the medical profession which bear heavily on total costs of care:

Administrative costs of maintaining federal medical programs are spiraling so rapidly that if they continue at their present rate many additional benefits written into the law to be in effect by 1975 will have to be re-examined and curtailed if those states are to continue to receive federal subsidy. Quality of medical care, which is an integral part of medicare-medicaid programs, will necessarily suffer. The number of government workers necessary to implement and operate the huge medical programs increased from 7,000 to 100,000 in one year! The number of employees and voluminous records to establish profiles by fiscal intermediaries have increased approximately 30 per cent.

The Government has added to administrative costs, not only by imposition of the minimum wage law and heavy paper work—including forms for payment of claims, but the demands for utilization committees, and mechanisms for review, stipulation of the number of professional visits and days in hospital prior to admission to nursing homes and extended care facilities, all add up to innumerable employee-hours.

Unions and their increasing wage demands, fringe benefits, and health care for their members must share their full blame

for rising costs and increased utilization. Unrealistic demands of patients for unnecessary hospital admission or prolonged hospital stay add to the costs which *they* could help control. The legal profession must assume much of the responsibility for spiraling costs of malpractice insurance rates for encouragement of "nuisance" suits, which have no merit but are brought with the conviction that the busy doctor will request his insurance company to make some kind of minimal settlement, knowing there is no merit to the contention of "negligence" because it is a nuisance to fight the case in court and the easy way is to settle and be done with it. But because of the increasing number of these "nuisance suits," doctors are forced into "running scared" and often run unnecessary diagnostic tests to protect themselves against the contingency of defense in the courts. Malpractice suits against physicians have become so frequent that some states have passed laws imposing a fine on a plaintiff who files a suit that the court rules to be "frivolous." The rates are prohibitive in some parts of the country, and some insurance carriers are refusing to write this type of policy at any cost.

Let us take a long look, too, at the part that each individual citizen has played in *his* contribution to the costs of medical care. He has demanded Medical Care as a *Right*. It is the generally accepted view that health services of high quality should be made available to *all* people. But has the individual citizen considered his corollary responsibility in accepting this *Right*? How about that majority of people who refuse to assume responsibility for maintaining good health? Statistics are published about that huge segment of population overweight because of intemperate eating. Increasing demands on the medical profession are also the result of indifference of people in maintaining bodily health. How about large numbers of people in *all* economic groups suffering from malnutrition and vitamin deficiency because they disregard well-known nutritional requirements—and those hordes of individuals who become victims

of emphysema and coronary heart disease because they smoke even though they have been warned repeatedly that it is detrimental to health—and those who destroy physical and mental health by use of drugs and alcohol. Added to these casualties are the unnecessary and avoidable emotional and physical stresses brought upon themselves and which require care. Recently published statistics list suicide as fifth among causes of death—third among college students. And another thought to contemplate: How about those who are so turned in upon themselves that they examine minutely every ache, pain, psychic and mental aberration that they "worry themselves into an inability to function," into custodial care, or into an early grave!

Who can overlook the responsibility of those who, disregarding highway safety, hurl themselves down highways at death-defying speeds and wind up as the responsibility of hospitals, physicians and personnel who dispense life-saving procedures? All of these things add to the costs of medical care.

As a non-physician having more than a passing knowledge of the forces being brought upon medicine today, I would urge that the medical profession challenge their accusers and ask them to look to themselves and accept their part in creating a system of health care that soon nobody can afford. For we, as non-physicians, are not without blame, and it is time we turned that accusing finger away from the "others" who we would like to hold responsible, and look again at ourselves and do whatever *we* can to turn the tide before it is too late.

Members of the medical profession, with the help of its fine institutions, societies and thoughtful representatives, predicted all the evils and catastrophic expenses. But warnings were unheeded! And now that our country is saddled with the monstrosity, who is being blamed but the doctors? Let them raise their voices and help to redistribute the blame where it belongs! (*From the Rocky Mountain Medical Journal, December 1969*)

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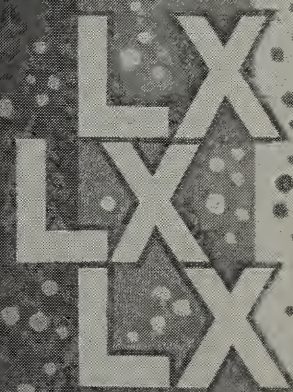
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Manuscripts must be typewritten on one side of letter-weight paper. Either double or triple spacing and wide margins must be provided to facilitate editing which will be legible for the printer.

Bibliographic references should not exceed twenty in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to the style used in the American Medical Association publications, as,—Alais, F. G.: What Is Known About it, J. Tennessee M. A., 35:132, 1950.

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In general, only recent medical graduates have the perspective of Mental Retardation as a sociologic symptom of the individual's environment. If Mental Retardation represents the result of an impoverished environment, in the majority of instances, then it should be reversible to some degree at least by a change in the patient's pattern of life. Management must include appropriate schooling, behavioral modification, vocational and social training. The family physician who meets this problem and feels inadequate to cope with it will need to seek aid from consultants in Pediatrics, Psychiatry or from the state's Department of Mental Health before he advises the parents that the situation is hopeless.

Mental Retardation for the 1970's*

ROBERT COHEN, M.D., M.P.H., Raleigh, North Carolina

Our basic philosophy is that each retarded child and adult can be helped and must be helped to be able to utilize his abilities fully to reach his highest possible level of life fulfillment at home, at work, and at play, and attain his ultimate potential so that he can assume his rightful role in society. Many retarded persons have made remarkable progress in general functioning, in spite of initial low tests of performance, when vigorous steps have been undertaken to remedy and ameliorate adverse conditions in their lives, and to subject them to appropriate schooling, behavioral modification, vocational, and social training. The mistaken notion that retardation is an irreversible, unchangeable condition is at last giving way in a score of fields. Replacing this long frozen view of retardation is a mounting involvement and excitement among scientists, health specialists, educators, psychologists, social workers, and therapists. This new attitude is bringing attention, respect, and action programs in the field of mental retardation. If wisely cultivated, it will assign retardation the important priority in comprehensive service, planning, and programming that it rightfully deserves.

Since we now know that human potential is determined not by nature alone but also by the interaction between the individual

and his environment, it follows that an improved environment can change the course of life. The fact that nature and nurture shape human lives make all the difference in current attitudes and actions toward the retarded.

Effective diagnosis, study and treatment of any condition now requires the cooperative knowledge and skills of many people from many fields and we are now stressing the interdisciplinary, interdepartmental, interorganizational and intergovernmental cooperative approach to this problem.

There is a distinct difference between mental illness and mental retardation. Briefly, mental illness can be considered as an acute illness occurring in a person who may have previously been in normal health with normal mentality—retardation occurs as a late complication of regression and/or deterioration in this illness. Diagnosed sufficiently early and treated vigorously and adequately, the prognosis can be considered as excellent. On the other hand, *mental retardation is a chronic lifelong condition*. By definition it involves both significant subnormal intelligence and a distinct impairment in adaptive behavior with onset during the developmental period. *The proper care and treatment for this condition involves a complete array of services projected over the lifetime of the individual.*

Even though the vast majority of retardates have overlying emotional problems, it has been demonstrated that up to as high as

*From the State of North Carolina Department of Mental Health, Raleigh, N.C.

Dr. Cohen was past Assistant Commissioner, Mental Retardation Services, State of Tennessee Department of Mental Health.

85% of the individuals meeting all the diagnostic criteria of mental retardation, if given the proper care and treatment at the proper times in their life cycle, can be habilitated to independent or semi-independent community living. This has been made possible by new directions in programming resulting from the interdisciplinary evaluation of the individual in which various specialists, as a result of their own independent evaluation in their fields of expertise, are able, after a conference, to prescribe a definite program to attain the maximum degree of the individual's potential. One of the most important aspects in the entire program is the primary physician's role in early identification. The pediatrician or general practitioner is the chief professional person who has contact with children in the preschool period. He is the primary professional person with the clinical training and skills to detect early deviation in the pattern of growth and development, or other abnormalities suggesting a diagnosis of mental retardation. By virtue of his relationship to the family, he is the appropriate person to coordinate and evaluate various diagnostic procedures, report findings to the parents, and assist in planning for comprehensive long-term care.

This individualized therapeutic prescription usually involves a stepwise progression in which goals are set in various areas of physical, mental and social competence, and specific training and behavioral modification are designed to meet each step in the goal. Naturally, to achieve the desired end result, adequate well-trained personnel and the array of different community facilities and services are an absolute necessity. The initiative of the primary physician is crucial to the development of community resources. He is the key person to encourage the use of screening devices, the establishment of diagnostic teams and clinics, and the alertness of the other disciplines to the possibility of early identification. He should assume a leadership role in implementing community programs and organizing facilities.

It has been estimated that from 75 to 88% of all of the causes of mental retardation can be attributed to social-cultural-familial-environmental deprivation. The 200

to 300 identified organic causes account for less than 25% of all instances of retardation. These statistics imply that the major emphasis on the prevention of this most prevalent handicapping condition of childhood must be concentrated on the improvement of the basic health, education and social welfare services. Generic services must be expanded and utilized. It is impossible to separate poverty, crowded and inadequate housing, unsanitary living conditions, poor nutrition, and inadequate pre-, peri-, and post-natal care, from mental retardation and the other social ills of our contemporary society.

The problem of mental retardation must be considered along the lines of immediate, intermediate and long-range goals. It concerns the overlap of two major aspects of the human condition, behavior and intelligence. Therefore, an attempt to focus only on planning and intervention for crises without stressing prevention, public education, awareness and early identification, and the physical, mental, and social remedial needs, will meet with nothing but disaster. The entire ecologic picture must be included, and this involves changes in the individual, his family, his school, his community and his entire environment with local, state, and federal assistance. The major immediate trust is for community programs and community facilities. These programs include diagnostic and clinic services, special programs for education, including preschool, school excluded, and postschool situations; vocational rehabilitation; social services; parent counseling; recreation; services for the retarded juvenile offender; guardianship and legal services; religious nurture; and coordination of all of these programs. Community facilities must include diagnosis, evaluation, and programming; day-care facilities; adult activities; sheltered workshops; vocational training centers; community residential facilities; group home facilities; short-term residential facilities; half-way houses; and group-living residences.

Under the present circumstances, only one to two per 1,000 population are so retarded as to require institutional care. It is anticipated that this ratio will decrease even

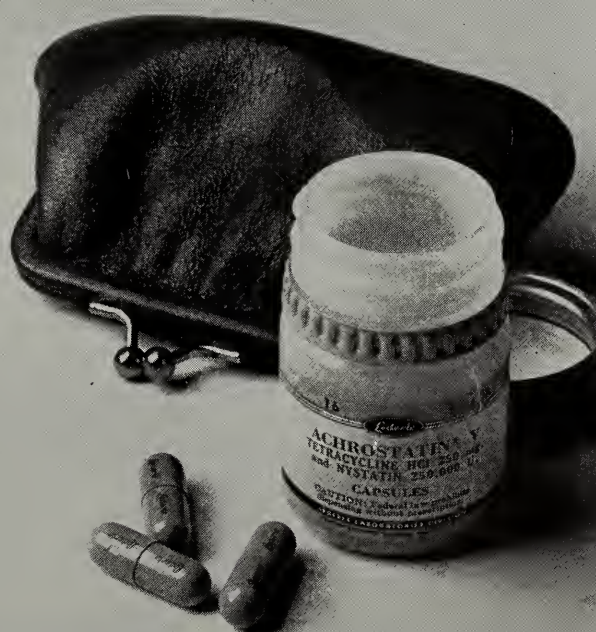
further in the future as more community programs become available. The institutions for mental retardation should be considered as only one of the facilities in the regional program. There should be a free flow of patients and personnel between the institutions and community facilities. In fact, long-range goals visualize institutionalization for only the retardees who require constant medical and/or nursing care, need modification of behavioral problems which preclude successful living in the community, or have no place of residence in the community due

to adverse home circumstances or lack of any residential arrangement or facility in the community itself.

The problem of mental retardation calls for our best efforts as professionals and citizens. In addition to preventive measures, we must identify and use resources necessary to affect the desired change and we must assign responsibility for utilizing these resources. The necessary programs must be established and adequate follow-up built in from the very beginning.

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Bronchoscopy and Esophagoscopy Simplified

EDWARD F. SKINNER, M.D., Memphis, Tennessee

The following method for bronchoscopy and esophagoscopy has been used in many hundreds of examinations in the past 15 years both here and elsewhere. It is rapid and safe. Most of the examinations are done thiopental or methohexital anesthesia plus succinylcholine. If the surgeon wishes he may spray the throat lightly with a local anesthetic after the patient is asleep, but this really is not necessary. If the purpose of the bronchoscopy is to stimulate the cough reflex and clean out excess secretions from the tracheobronchial tree it is best omitted.

The standard Jackson position is not used.¹ Instead the patient is placed on the flat operating table which makes it much easier for both the surgeon and the person holding the patient's head. (Figs. 1 and 2) If the surgeon wears glasses, a head shield is unnecessary and visibility is better.

If bronchoscopy and esophagoscopy are



Fig 1. Bronchoscopy. The patient's head rests on the flat operating table so it is steady and yet easily moved from side to side. Note the rubber tube carrying oxygen from the anesthetic machine to the sidearm of the bronchoscope.



Fig 2. Esophagoscopy. An endotracheal tube is in place but its terminal bag deflated to allow easier passage of the esophagoscope.

to be done at the same sitting I believe it is safer to do the esophagoscopy first. In this case the anesthetist inserts an endotracheal tube after first anesthetizing the patient, after which the esophagoscopy is done. (To see the phrenic ampulla it is sometimes necessary to lower the head section of the operating table temporarily). After esophagoscopy is completed, the esophagoscope is removed and the endotracheal tube is left in place for another minute or two while the surgeon rearranges his bronchoscopy instruments and telescopes. Then the endotracheal tube is removed and the bronchoscope introduced. The bronchoscope and the esophagoscope are held horizontally during insertion. I personally prefer a standard Jackson bronchoscope to a ventilating bronchoscope since it is simpler to use and the visibility is often better². *No external chest respiratory devices are necessary.*

To convert the standard bronchoscope to a ventilating bronchoscope the anesthetist removes the rubber face mask from the anesthetic machine and substitutes a universal endotracheal adapter which is con-

From the University of Tennessee College of Medicine, and the Baptist Memorial Hospital, Memphis, Tenn.

nected to a 3-foot length of rubber tubing. This in turn attaches to the side-arm (aspirating canal) of the bronchoscope.

The surgeon can hold his finger over the end of the bronchoscope periodically while the instrument is in the tracheobronchial tree, and then the anesthetist can easily inflate the lungs at will using either pressure on the rubber bag or short bursts with the flush valve on the machine. The bronchoscope fits loosely in the larynx so there is no danger of alveolar rupture.

Bronchoscopy under general anesthesia is much more pleasant for the patient; he has no unpleasant recall for the procedure so he will not object to a second examination if it should be necessary³ and if the premedication has been adequate the patient often wakes up afterwards and says "When are you going to do my bronchoscopy?"

Summary. A simple, safe, rapid method is described for bronchoscopy and esophagoscopy.

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The author points up the usefulness of injectable psychotropic drugs under certain circumstances.

A Useful Drug*

HARVEY W. ANDERSON, M.D., Jackson, Tennessee

Fluphenazine enanthate (Prolixin enanthate) is a useful psychotropic agent that is long acting, injectable—25 mg per cc—and given intramuscularly. Squibb and Sons, the manufacturer, states that it also may be given subcutaneously, but since it is suspended in sesame oil I prefer to hide it within a muscle. The duration of effect of this agent is from 1 to 3 weeks. Our dosage schedule is 1 cc (25 mg.) every 2 weeks. I have noticed that most patients will report that minor agitation and nervousness have returned 2 to 3 days in advance of the next injection. This drug is strictly a "heavy-weight" tranquilizing compound. It has antipsychotic properties; it will tame hallucinations; reduce the intensity of paranoia; decrease the volume of delusions in such states as schizophrenia or psychotic depressive reactions; and, to a lesser degree, it is effective in the treatment of psychotic states associated with organicity. Fluphenazine (Prolixin) in short, is similar to chlorpromazine (Thorazine), thioridazine (Mellaril), trifluoperazine (Stelazine), perphenazine (Trilafon) and in no way should it be confused with anti-anxiety drugs on the level of meprobamate, chlordiazepoxide (Librium) and diazepam (Valium). (Permitil by White Laboratories is identical to Prolixin, but does not come in the form under discussion here.)

Illustrative Cases

Case 1. A 65 year old woman 4 years ago was treated for 4 months at Western State Psychiatric Hospital (WSPH) where she presented in a paranoid state. Her mind was filled with ideas about politicians, Negroes and communists. She had a 15 year history of irritability and depression.

The patient made but 2 visits to the outpatient medication clinic in August and September of 1965 following her discharge from WSPH. She then was taking Stelazine 2 mg b.i.d. and Tofranil 25 mg t.i.d. Sometime later, after a period without visits, she was brought to the clinic on Dec. 12, 1968, in an uncooperative, hostile, agi-

tated, totally psychotic state of strong paranoid flavoring. She appeared as one who typically requires immediate psychiatric hospitalization. All oral medication was refused. I gave her 25 mg of Prolixin intramuscularly, very much against her will but with the assent of her daughter who had brought the patient to the clinic.

The patient was seen again 15 days later when she was a little reserved but pleasant, and appearing quite well. She referred to her recent mental chaos by saying that she had been ill with "flu". The patient was then placed on Stelazine 2 mg t.i.d. When she was seen again 3 weeks later she was further improved except for mild akathisia, for which Pipanol 2 mg t.i.d. was added. There have been 3 subsequent visits during the past year and she consistently has maintained her improved state, and from all reports enjoys a good life.

Case 2. This 38 year old woman had been treated for chronic undifferentiated schizophrenia in four different hospitalizations between 1963 and 1966. Part of the content of the presenting illness at the last admission was: "Everyone has turned against me; nobody believes me; the furniture in my house doesn't seem the right size; the neighbor man made me pregnant; yes, Jesus, I hear you." She was successfully maintained outside of the state hospital from March 1966 to October 1968, attended the clinic and took Thorazine 75 to 150 mg daily. At her visit on Oct. 25, 1968 she began to tell me of her Pentecostal Church revival services, for her not an unusual topic. It struck me that her informational level was low; for example, she was unaware that Mrs. John F. Kennedy was a widow. I encouraged her to continue with her medicine regularly and she shortly burst out with, "If it's the Lord's will for me to take medicine and go back to the hospital I'll do it but otherwise I won't." She hollered that she did not need to take any more medicine; the social worker learned that she had not been taking it lately, and that the patient had progressed rapidly into an obvious psychotic state. I countered her idea by one of my own: "The Lord helped me become a doctor and I think He wants me to give you this medicine." This made her pause to think and soon she agreed to permit an injection of Prolixin. When she was seen again 2 weeks later she was subdued and reported that she did not feel as well as she did before. Oral medication as a Thorazine spansule 75 mg once a day and Tofranil 25 mg once a day was instituted. In the next 10 months she visited the clinic 3

*From the Jackson Mental Health Center, Jackson, Tenn.

times, appeared well though constricted, and seemed to be getting by about as well as I had ever observed before her relapse.

Case 3. A 40 year old man gave a history of 2 previous admissions to WSPH with a diagnosis of schizophrenic reaction, chronic undifferentiated type. After his second discharge November 1967 to July 1968 he was given Prolixin enanthate systematically every 2 weeks. Because of an increased clinic load, I elected to switch him to Prolixin in tablet form, 1 mg b.i.d., so he would not need to be seen in clinic so often.

At his January 10, 1969 visit he seemed brighter. The prescription was refilled. On April 1, without our arrangement, he appeared for readmission at WSPH in a disheveled, withdrawn, psychotic state. The Hospital social history obtained from the wife indicated that he had taken very few tablets since November 1968. WSPH released him to outpatient care on July 31, but nothing was seen of him until he dropped into the Jackson Mental Health Center waiting room on September 10, where he eloquently, accurately, and reverently recited the Lord's Prayer before the cookie-cracker vending machine. He has always been a very friendly person—in or out of psychosis—and he readily submitted to an injection of Prolixin 25 mg. However, within a day the Jackson Police discovered him aimlessly positioned in the city streets and when the choice arose between revamping urban traffic flow or redispaching this patient to the hospital, the latter alternative was taken. (In hindsight, of course, this particular, "pill-reluctant" patient should not have been withdrawn from his scheduled injections.)

Case 4. A 35 year old woman, congenitally deaf and mute, had a psychiatric background of 4 admissions to WSPH. Several of these hospitalizations were protracted between 1953 to 1966. The diagnosis was chronic brain syndrome; mental deficiency, moderate, with psychotic reaction.

She was seen regularly in the outpatient clinic where she was periodically supplied with Thorazine 50 mg to be taken t.i.d. In February 1968,

her mother said the patient was refusing to take medication and that she paraded around the house wearing only a sheet. The social history was negative for membership in secret societies. I added Trilafon 4 mg t.i.d. to the treatment program, but evidently she did not take this nor the Thorazine since the March appointment was skipped and we learned that WSPH had received her again on April 4, 1968.

A month and half later she was dismissed to outpatient care again and by this time the hospital had inaugurated for her a schedule of an injection of Prolixin on a 2 week basis. This was continued for 2 months when I endeavored to transfer her from injections to tablets of the same drug. However, before very long the mother reported that the patient had pregnancy fantasies and that she had a fear that the pills would kill the baby. The injections accordingly were resumed and to date there have been no complications or signs of renewed psychic disorganization.

Discussion

More examples of this type have been our clinic experience. The unique illustration of Cases 1 and 2 is that with a single injection of Prolixin enanthate obviously urgent re-hospitalization became needless. Cases 3 and 4 show that there are citizens in this world who by family structure or as a facet of illness simply will not use oral medication with any profitable degree of consistency. I am unwilling to conclude that shorter-acting preparations such as Thorazine injectable or Trilafon injectable would not be equally useful for some of the conditions depicted. I only conclude that Prolixin enanthate by injection has several advantageous applications.

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The author reviews attitudes of physicians attending the patient who faces death from cancer, and the impact these attitudes have upon the patient. Many students of the problem have speculated upon and attempted to analyze why the doctor can face as certain dissolution from heart disease or disseminated lupus in his patient in security and with equanimity, and yet meets cancer with fear and insecurity.

TERMINAL CANCER: A Patient Oriented Approach*

ROBERT K. OLDHAM, M.D., Nashville, Tenn.

Introduction

Facing the patient with terminal disease is one of the most important but least discussed problems in the practice of medicine. Almost daily the physician is called upon to deal with a patient in this situation, but may do so with little insight into his own feelings or those of the patient. Perhaps the most common and certainly the most dreaded disease to end in death today is cancer of one form or another. This paper will deal with this problem of terminal disease and the inherent physician-patient relationship.

Death and incurable disease are spoken of in hushed terms by the population at large. Articles both popular and scientific have been written about the American attitude toward dying. Little is actually said about death in our preoccupation with living and the attitude seems in general to be one of ignoring the inevitability of personal death.

One would think that since medicine faces the problem of dying almost on a daily basis, some emphasis on how to deal with it would be found in medical education. This is in fact not so, and some studies indicate that the physician's relationship with dying patients may be founded more on his attitudes prior to entering medical school than those derived from his own clinical experience.^{1,2} Physicians are even reluctant to discuss this area of medicine among themselves.³

The Physician

How then does the physician deal with the problem of malignant disease in its terminal stages? Implicit within this question is another—how does the physician view cancer in general? Although one

might expect him to approach this disease in a more professional light than a layman, some studies have demonstrated that physicians see cancer as "dirty, shameful and a killer" with a painful demise much as the lay public views it.^{1,4}

Because of this attitude of pessimism and futility in the treatment of cancer, the physician may be less than aggressive in his approach to this disease and its many complications.

Whether to tell or not to tell the cancer patient his diagnosis is a subject which has attracted much attention in the literature. Recent studies have found that approximately 75% of physicians withhold the diagnosis of terminal cancer from the patient.^{1,5} This is in direct opposition to the feelings of the patient.⁶ A doctor may withhold this information from the patient fearing that disclosure might precipitate an emotional crisis resulting in attempted suicide. Available information does not substantiate this fear.^{1,7} In fact, it seems emotion-laden a priori personal judgments are the real determinants of physician's attitudes rather than the frequently cited "clinical experience."^{1,3}

The care of an incurable patient is demanding, frustrating, and time consuming.⁸ The physician's self esteem may not be maintained by the patient's clinical response, so he may inadvertently have a tendency to reject the patient. First denial may occur with substitution of other synonyms (i.e. "growth" or "mass") for the word cancer, and this is rationalized as being for the good of the patient.³ This is followed by accidentally forgetting to see the patient on rounds, and the development of a more "objective" point of view toward the patient. In the final stage, overt rejection

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tion occurs as the doctor moves on to a "more interesting case."⁴ The phenomena of "premortem burial" may occur here—drawn shades, low voices, unnatural attitude toward the patient, increasing narcotics and complete avoidance of verbal contact.⁹ This is just the sequence the patient fears most.^{10,11}

One of the many factors involved and possibly one of the most important, is the physician's own unresolved fear of personal death. Feifel⁴ found in a series of 40 physicians that doctors think of personal death less and fear it more than the lay person. He intellectualizes his fear as if answering the question for others, but does not face it himself. The sublimation of this conflict resulting from the unresolved fear of death may even be a factor in the student's decision to become a physician. This very conflict may give rise later to a counter-transference of these feelings, thereby resulting in the unwitting rejection of the patient.⁴

The Patient

If the above problems plague the physician, where does the patient stand relative to his illness? It is known that cancer is the most feared disease today and compared to other illnesses, the patient can do little to alter its course. It is viewed as dirty, painful, possibly contagious and followed surely by death.^{12,13} What then is the attitude of the patient toward knowing his diagnosis? Several studies indicate that between 65 and 90% of unselected cancer patients were in favor of having been informed of their diagnosis.^{6,12,14} Twenty percent denied they had been told their diagnosis within one month of a careful explanation of their situation. Many patients do want to know their fate, and their questions should be answered.^{7,15}

The patient with cancer may pass through three stages.

(1) *Initial Stage.* The diagnosis is made, treatment is begun, and there is good communication between the doctor and patient.

(2) *Advancing Stage.* Much denial is used by patient upon recurrence.³ He may concentrate on diet and somatic symptoms unrelated to the cancer at this point. A dependency role may be assumed here,

and the patient fears rejection and abandonment by the doctor. He may have unrealistic beliefs about his physician's ability to cure. Being very ill may precipitate feelings of guilt in the patient and interfere with communication.¹⁶

(3) *Terminal Stage.* Increased dependency and fear of abandonment are present and withdrawal from reality may occur. The patient may wish to talk about his activities of daily living. It must be remembered he does generally want to verbalize here, and the physician must not abandon him for a "more interesting case."³

Defense mechanisms commonly used by the patient during this process included suppression, denial and regression.¹⁰ The latter mechanism is present when the patient uses emotional responses employed successfully as a child. The dying patient at this time fears most his loss of control, his indistinct ego boundaries, and his often increasing isolation. Isolation, the very aspect of dying he fears most, is likely to occur when his physician is unable, because of his own anxiety, to pay meticulous attention to the physical and emotional needs of the patient.^{9,17}

It should be noted that the preference of many dying individuals is to do so comfortably and with dignity in their own home, and certainly if possible, their wishes should be respected.

Resolution

So how might the physician be better equipped to deal with this problem of dying?

(1) *Education.* Certainly more attention should be directed toward the dying patient and how the doctor can best face it with his patient. More verbalization is necessary in the clinical learning period, so the young doctor will gain insight into his personal fear of death. Attention should be focused on the psychologic needs of the patient. An evaluation of the patient's emotional status should be an integral part of the history and physical examination recorded in the chart.³ The problem of terminal illness should be faced and discussed with candor among physicians and between the patient and his

physician, rather than pushed aside or merely alluded to with euphemisms.

(2) *Communication*. The doctor must allow the patient to verbalize his feelings, and his questions should be answered with clarity and support.¹⁵ It becomes a tragic comedy of errors when the family knows, the doctor knows, and the patient knows, but no communication takes place. The patient is then left to his own pitiful resources in a darkened room.

(3) *Attention*. Attention to detail is important in making the last days comfortable. Treatment of pain and other remedial complications of malignant disease must not be neglected. Good nursing care and regular visits with his physician does much to alleviate the patient's suffering.

(4) *Realism*. Acceptance of the patient's fate by the doctor in the final stages is very important. Artificial prolongation of life at this point may be harmful to the patient as well as to his family.

Hope should be maintained, for it gives strength to the patient with an incurable illness.¹⁸ The doctor can be very helpful here in supporting the patient's hope with encouragement about new drugs which may help control (but not cure) the cancer. A protective, understanding physician who allows his patient to verbalize can do much to ameliorate the suffering of the dying patient.¹⁹

In summary then, I would like to offer these pertinent quotes.

"Hope is itself a species of happiness."

Samuel Johnson

"If I had the strength to hold a pen, I would write now how easy and pleasant it is to die."

William Hunter, M.D.

"The physician, by example, often determines the behavior and attitude of nurse and family during the usually protracted, weary course of terminal cancer. Let us act with authority and with a full sense of responsibility. But also let us act with compassion and understanding and restrained, subtle sympathy. A cheerful demeanor, patient attention to minor as well as major complaints, careful and detailed directions to nurse and family regarding the treatment of symptoms, the avoidance before the patient of either a hopeless attitude or of

indifference regarding small items of procedure, encouragement by attitude and indirection—these are of the essence. They support and sustain the spirit of his battle—a battle which may be won even though the body is doomed to failure."

Hugh J. Morgan, M.D.²⁰

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CLINICOPATHOLOGIC CONFERENCE

Baptist Memorial Hospital Brain Stem Glioma in Children*

J. RODNEY FEILD, M.D. and
AMIN A. FARIS, M.D.

The patient was a 5-year-old Negro girl, first admitted to Baptist Memorial Hospital on Nov. 8, 1967.

Her illness began approximately one week before admission, heralded by a staggering gait and favoring the right lower extremity. Two days later the child complained of bifrontal headache and developed episodic vomiting. In addition, the eyes were noted to be deviated constantly to the left side. Altered consciousness and/or seizures were denied. The child reportedly had had fever as observed by her family physician who administered several "shots" during the week before admission.

The past medical history was noncontributory.

Physical examination on admission revealed a BP of 100/60, T. 99°F., R 20/min., P 70/min. and regular. The head, ears, nose and throat were within normal limits. The tympanic membranes were clear. The neck was supple. The lungs were clear. The heart was not enlarged but a Grade III/IV systolic apical murmur was present. The abdomen was soft without enlargement of organs.

Neurologic examination: The child was dull mentally and apathetic, but responded appropriately to her surroundings. The optic fundi and pupils were normal and gross visual fields demonstrated no abnormality. The eyes tended to be deviated to the left with occasional movements to the midline; however, voluntary movements to the right were possible at which time nystagmus was observed. A questionable 7th central cranial nerve weakness was present on the right. Function of the other cranial nerves was within normal limits. The motor and sensory examination disclosed no abnormalities. The deep tendon reflexes were normal and Babinski signs were absent bilaterally. There was a mild right finger-to-nose and heel-to-knee ataxia. The gait was also moderately ataxic, the child having a tendency to sway to the right side.

Laboratory data: CBC and differential count, and urinalysis were normal. Sick cell preparation was negative. An EEG disclosed diffuse irregular slowing in the theta range of 6 to 7

cycles per second with no definite laterilization. Echoencephalogram demonstrated no shift of the mid-line structures, though it suggested an enlarged third ventricle. Plain films of the skull showed no evidence of increased intracranial pressure and no abnormal calcific deposits. An x-ray of the chest suggested minimal increase in cardiac size.

Course in hospital: Conray ventriculography was performed through parieto-occipital bur holes under general anesthesia on Nov. 10. This confirmed the suspicion of an enlarged lateral and 3rd ventricles and elevated and elongated aqueduct. The 4th ventricle was not visualized. Following the ventriculogram, a suboccipital craniectomy was done and a partial right cerebellar hemispherectomy was performed. A Torkildsen shunt procedure was completed at the same time.

The postoperative course was essentially unremarkable until Nov. 24, when the child developed headache and vomiting, thought to be due to malfunction of the shunt. The next day a ventriculo-atrial shunt was performed with recession of the headache and vomiting. The child did well in the ensuing 4 days and was discharged on Dec. 5, 1967 to return for followup in one month.

She was readmitted to this hospital on Dec. 24. Two days before this last admission the child developed difficulty in swallowing and progressive mental deterioration set in.

The general *physical examination* was within normal limits. The neurologic examination disclosed the child to be stuporous, sluggishly responding to oral commands, and would not speak. An external bilateral ophthalmoplegia was apparent and the gag reflexes were depressed. Left hemiparesis was present, more intense in the lower extremity. All deep tendon reflexes were hyperactive with bilateral ankle clonus and bilateral positive Babinski signs.

Laboratory examination at this time including blood count, urinalysis, serum electrolytes and urine and sputum cultures were within normal limits.

The patient was maintained on supportive therapy, being fed intravenously and through a nasal gastric tube throughout her hospital stay of 30 days. There were repeated bouts of hyperthermia and continuous downhill course that terminated in death on Jan. 24, 1968.

Clinical Discussion

Presiding: DR. JOHN NASH. The clinical discussant for this interesting case today will be Dr. Rodney Feild.

DR. J. RODNEY FEILD: I assume that everybody has had time to review the protocol. If you have not, we will go over part of it now. The patient was a 5-year-old

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Negro girl. One week prior to admission the family noticed an ataxic gait and that the child favored the right lower extremity. We are told these symptoms were present for only one week, but perhaps they were in existence longer than a week considering the information supplied later on in the protocol. Five days prior to admission the patient complained of a headache and vomiting. It was noted that her eyes deviated to the left. This particular complaint can be categorized as 'deviation nystagmus' and represents a focal cerebellar sign. Whether the child actually had fever or not is unknown. At this point, from the history alone, one would consider the possibility of a posterior fossa lesion. The vital signs were within normal limits and are not helpful in making the diagnosis. On the physical examination the heart murmur described is worrisome, at least as far as I am concerned. On neurologic examination the child was apathetic, the eyes deviated to the left at all times, and when they were directed to the midline or farther toward the right, she developed a nystagmus. This finding alone locates a lesion in the right lateral cerebellar hemisphere. On further examination a right hemiataxia was found by testing the extremities individually and by testing the gait. The routine laboratory studies were negative. The EEG was diffusely abnormal which can be expected in a cerebellar lesion. The skull x-rays were negative. It is significant that there were no signs of increased intracranial pressure seen on the plain skull films. Frequently children present with marked intracranial pressure and have skull x-rays revealing sprung sutures, erosion of the dorsum sellae, and sometimes an enlarged posterior fossa. The echogram in this instance showed that even though there was no shift, the third ventricle was widened. (The normal measurements of the third ventricle are up to 8 mm.) Chest x-ray showed an enlarged heart. A Conray ventriculogram was performed and in a little while Dr. Booth will discuss that with us. I would like to go ahead with the case before we look at the ventriculogram. We are told that the third ventricle was enlarged on the ventriculogram confirming the findings of the echo-

gram. The protocol mentions an elongated and elevated aqueduct. A posterior fossa exploration was performed on November 10, at which time the right lateral cerebellar hemisphere was resected and a Torkildsen procedure was performed. Later on the child was thought to develop signs of increased intracranial pressure and a ventriculo-atrial shunt was performed. The second surgical procedure was 2 weeks after the initial operation. The child was discharged and brought back into the hospital 19 days later with signs of increased intracranial pressure, and we are told that the child had an external ophthalmoplegia. For my purposes this could have been a little more descriptive. External ophthalmoplegia means that any of the external ocular muscles are involved and does not clinically localize the particular nerve involved. In external ophthalmoplegia the pupils are not involved. I will assume that this is a bilateral 6th nerve palsy, and this represents the effects of marked intracranial pressure. The 6th cranial nerve exits from the pons at midline and travels in Dorello's canal up the clivus of the occipital bone and enters the floor of the cavernous sinus traveling through the superior orbital fissure to innervate the lateral rectus muscle ipsilaterally. Increased intracranial pressure causes a descent of the brain stem which in turn places traction upon the 6th nerve or presses it against the vessels on the surface on the brain stem causing paralysis of each lateral rectus muscle. Such a state in the extraocular muscles causes an over-pull by each medial rectus and the eyes turn toward the nose, thus producing an external ophthalmoplegia involving the lateral rectus muscles bilaterally.¹ At this time there was a left hemiparesis and corticospinal tract signs such as increased deep tendon reflexes and bilateral Babinski signs. The child's condition deteriorated and she died on January 24, 1968. As I mentioned, from the history one should immediately think of a posterior fossa lesion in a child with headaches, nausea, vomiting, ataxia, and nystagmus. About 70% of intracranial tumors in children are in the posterior fossa.² Where is the tumor in the posterior fossa?

We know from the protocol that an opera-

tion was performed removing the right lateral cerebellar hemisphere. Was the tumor in this area?

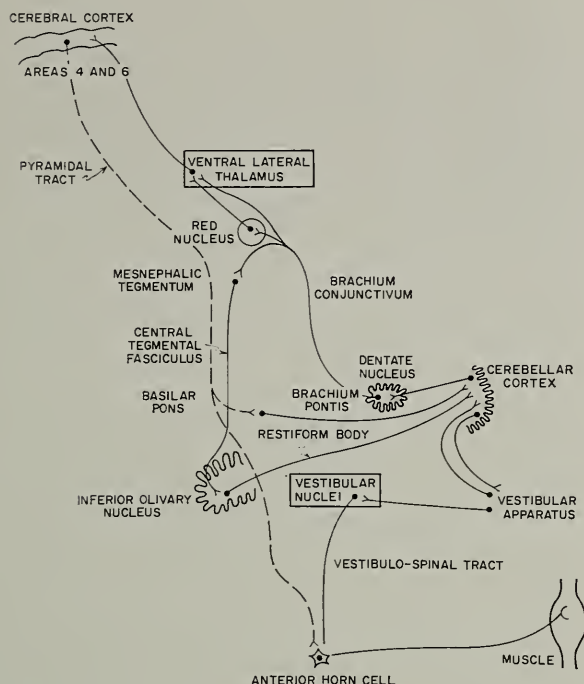


Fig. 1. Cerebellar and cerebral connections to demonstrate the ipsilateral symptoms that occur with cerebellar lesions.

Figure 1 demonstrates some important neuroanatomical facts. Fibers from the dentate nucleus travel in the dentato-rubro-thalamic tract through the brachium conjunctivum to the mesencephalon. Here they cross the midline in the decussation of the brachium conjunctivum and some synapse in the red nucleus. Fibers from the red nucleus travel in the rubro-thalamic tract. Some fibers crossing the decussation of the brachium conjunctivum do not synapse in the red nucleus, but travel to the thalamus in the dentato-thalamic tract. The entire complex is the dentato-rubro-thalamic tract. The ventral lateral nucleus of the thalamus receives this tract. At this point all fibers synapse and pass via the thalamocortical tract to areas 4 and 6 of the cerebral cortex. Fibers from the motor cortex, areas 4 and 6, and from the frontal area travel in the internal capsule ipsilaterally as fronto-pontine fibers to the ipsilateral basilar portion of the pons. Here they synapse and cross the midline of the basilar portion of the pons and travel through the brachium pontis to the cerebellar hemispheres, syn-

apsing in the cerebellar cortex. From the cerebellar cortex fibers are relayed to the dentate nucleus. From a functional standpoint the right side of the cerebellum is influencing the left cerebral cortex. There is a feed-back system, the cortico-ponto-cerebellar system, to modify the cerebellar output.

Some of the fibers in the brachium conjunctivum do not travel all the way to the red nucleus. Some synapse ipsilaterally and contralaterally with fibers in the tegmentum of the mesencephalon. The tegmentum gives rise to the central tegmental fasciculus which descends to the ipsilateral inferior olivary nucleus. From here fibers cross the midline again as olivocerebellar fibers to enter the restiform body and travel to the cerebellar cortex. Thus the cerebellum has a second feed-back system influencing contralateral structures concerned in motor function. The powerful vestibulo-spinal tract remains ipsilateral to the anterior horn cell. Fibers of the cerebral cortex passing through the pyramidal system pass through the internal capsule, the cerebral peduncle, the basilar portion of the pons, and decussate in the medulla to ultimately influence the contralateral anterior horn cell. However, the ipsilateral cerebellum has modified the contralateral cerebral cortex at several places as demonstrated in the diagram.² Therefore, ataxia produced by the cerebellar hemispheres and dentate nucleus is on the same side as the lesion.

Now that we know that this is in the posterior fossa and from neuroanatomical recollections, we know it is on the right side of the cerebellum, how are we going to make the diagnosis?

One can divide the diseases of the nervous system into seven categories which are as follows: vascular, infectious, neoplastic, traumatic, toxic-metabolic, degenerative, and congenital. These are listed in table 1. The location, the onset, and the progress of the disease are important. A reference to table 1 will show that vascular lesions of the brain (infarctions and transient ischemia) are focal, they involve only one artery at a time (usually), and are of sud-

Table 1

	Onset	Location	Progress
Vascular	Sudden	Focal	Stationary
*Neoplastic	Gradual	Focal	Progressive
Infectious	Sudden	Diffuse	Progressive
Trauma	Sudden	Diffuse or focal	Stationary
Toxic-Metabolic	Gradual	Diffuse	Progressive
Degenerative	Gradual	Diffuse	Progressive
Congenital	At Birth	Either	Either

*Includes abscess and subdural.

Table 1—Classification of neurologic diseases and a practical method of identifying the etiologic category.

den onset. Once a lesion has occurred it does not tend to progress. The artery has been occluded and the damage has been done. The findings are stationary for some time and tend to improve as the remainder of the brain compensates. Infectious diseases are diffuse involving the entire brain and subarachnoid spaces. They are of relatively sudden onset and tend to be either stationary, ultimately improving, or are progressive and lead to death. Neoplastic diseases are focal unless they are metastatic and in this instance may be multiple. However, symptoms usually arise from only one metastasis. The onset is gradual and symptoms progress as it grows. A bacterial abscess is an infectious disease, but should be considered in the category of neoplastic diseases along with a gumma and a tubercle. Traumatic lesions may be either focal or diffuse. They are usually diffuse and are of sudden onset and usually are stationary for quite some time. A subdural hematoma should be considered in the category of neoplastic disease. If there is significant intracerebral bleeding with head injuries, the disease is progressive. Toxic-metabolic lesions are diffuse. They are of gradual onset and tend to progress. Degenerative diseases are usually diffuse, and of gradual onset, and tend to be progressive. Congenital diseases may be either diffuse or focal, may progress, and are present at birth. After birth they may be progressive or stationary.

In considering this particular case, let us consider only the categories that are appropriate.

What about vascular diseases? What vascular diseases are there in a young child in the cerebellum? Certainly the degenerative vascular diseases of adulthood would not be present. What other possibilities are there? An A-V malformation is a possibility. Symptoms resulting from this should have a sudden onset characterized either by a hemorrhage or a stroke and resulting in rapid increase in intracranial pressure. The outcome would have been determined in less than 2 months. The posterior fossa will not tolerate a rapid increase in intracranial pressure without death in a matter of hours.

How about infectious disease? Tuberculous meningitis is a very common form of tuberculosis in children and primarily affects the posterior fossa as a basilar meningitis. The cranial nerves at the base of the brain are commonly involved and there is evidence of increased intracranial pressure. We have neither of those conditions in this child. The spinal fluid was not reported, and I assume from that that it was not contributory. A tuberculous abscess is a possibility that will have to be considered in the category of neoplasms. Tuberculosis of the central nervous system is secondary to pulmonary tuberculosis; and the chest x-ray was negative. (There was no fever and we have no mention of treatment for tuberculosis.) Therefore, I will rule this out. Syphilis is a possibility particularly since this is a CPC. There are several forms of syphilitic involvement of the nervous system with 3 possibilities in this case, meningitis, arteritis, and a gumma. We do not have any results of the spinal fluid exami-

nation, and no family history nor evidence of blood tests for syphilis. I do not think this diagnosis is likely since juvenile cerebrospinal syphilis is rare. Another lesion resulting from an infectious disease is arachnoiditis. This can occur in the posterior fossa in children. Perhaps affected children have some type of low grade infectious meningitis, perhaps a bacterial infection, not recognized, and incompletely treated. The patient recovers from the infection, but the subarachnoid space, particularly in the posterior fossa and around the brain stem, is scarred and an obstruction develops to the flow of spinal fluid through the foramen of Magendie and Luschka. There are other areas of scarring ventral to the brain stem and a huge inflammatory cyst develops. This dilates the 4th ventricle, the 3rd, and both lateral ventricles. Posterior fossa signs and symptoms develop. I do not believe a post-inflammatory arachnoidal cyst is a possibility in this case since the 4th ventricle is not dilated and it should be to some extent for this condition to occur. The ventriculogram is not consistent.

In the category of traumatic diseases, a subdural hematoma is a possibility. It would need to be in the posterior fossa. There should be definite evidence of a head injury. A linear fracture of the occipital bone is present in about 30% of cases⁴. The outcome is decided in a much shorter period of time than two and one-half months, perhaps hours. It would have been found at operation, and from reading the protocol we would have known the diagnosis.

Because the toxic-metabolic diseases and degenerative diseases are diffuse and gradual in onset and are progressive, I think these can be ruled out because we are dealing with a focal lesion.

What about congenital or neonatal diseases in the posterior fossa in children? One is the Dandy-Walker cyst. This was described by the eminent neurosurgeon Walter Dandy in the earlier part of this century.⁵ The foramen of Luschka and Magendie fail to open and remain impervious. The cerebrospinal fluid cannot pass out of the 4th ventricle and it dilates. As time passes and pressures rise the 4th ventricle becomes a very large cyst compressing and

causing atrophy of the cerebellum. Posterior fossa signs develop. A ventriculogram reveals a large, dilated, cystic 4th ventricle with a high tentorium cerebelli. Such is not the finding on this patient's ventriculogram. The condition pathophysiologically is similar to the arachnoidal cyst described above. The posterior fossa in each of these conditions can be seen to be very large on plain skull x-rays and one sees thinning of the occipital bone. None of these findings have been described. The Arnold-Chiari malformation, Type II, is a congenital abnormality of the brain stem occurring in children and usually connected with a lumbar meningocele or meningomyelocele.⁶ The basic cause is unknown, the theories are either an abnormal caudal growth on the pons through the foramen magnum or a traction phenomenon caused by an anchored lumbar cord pulling the brain stem through the foramen magnum. Spinal fluid flow is blocked at the foramen magnum and hydrocephalus is the result. At times the 4th ventricle on a ventriculogram can be seen below the foramen magnum in the upper cervical region and is elongated. This is not present in our case.

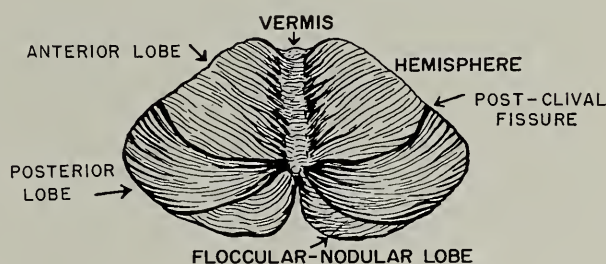


Fig. 2. Dorsal view of cerebellum.

What type of tumors occur in the posterior fossa in children? As we have pointed out, we are dealing with a lesion in the lateral portion of the cerebellum. This is the hemisphere of the cerebellum. Reference to figure 2 will be helpful. The cerebellar hemispheres and cerebellar vermis are shown and the flocculonodular lobe is noted. The posterior and anterior lobes are shown. Lesions of the posterior lobe produce ataxia major which is a truncal ataxia wherein the patient cannot sit up, stand alone, or walk. Lesions in the anterior lobe produce

a disturbance of gait alone. The reason for this is that both spinocerebellar tracts, the dorsal and ventral, end in the anterior lobe of the cerebellum. These tracts are in part responsible for proprioception of the lower extremities. A lesion in this area produces ataxia major. Ataxia major means an ataxia of significant magnitude involving the trunk to such an extent that it is evident in posture, stance, and gait. Ataxia minor means an extremity is involved and it is not obvious or of major proportions and is brought out by testing and is livable. Lesions of the hemisphere produce ataxia minor or extremity ataxia which is ipsilateral to the lesion as we have discussed. Lesions of the hemisphere and/or of the flocculonodular lobe may produce nystagmus. Deviation nystagmus is produced by a lesion of the contralateral hemisphere.⁷

What kind of tumors are there in the cerebellum in children? What kind of tumors are there in particular in the lateral cerebellar lobe in children?

To complete the picture, we will consider the entire cerebellum. A medulloblastoma may occur in the vermis of the cerebellum, either in the posterior or anterior medullary vellum. This is statistically either the most common or second most common tumor of the posterior fossa. Also in the midline is the ependymoma because the ependyma is only in the midline. Because the choroid plexus is in the midline, a choroid plexus papilloma is a possibility. Another tumor in the midline, but not in the cerebellum, is a brain stem glioma. This occurs in two varieties. One is a very low grade astrocytoma found in around 40% of the cases. The other type is the grade IV astrocytoma (glioblastoma multiforme) which contributes perhaps 60% or more of brain stem gliomas⁸. Anterior to the pons outside of the parenchyma of the brain is an area where a chordoma may occur. In this particular case we are not dealing with a midline lesion. The anatomic disruption of the ventriculogram is helpful, and we will look to Dr. Booth for guidance. The medulloblastoma, choroid plexus papilloma, and ependymoma obstruct the 4th ventricle completely and the ventricle is not seen on the ventriculo-

gram. The brain stem glioma displaces the aqueduct and 4th ventricle posteriorly and by measurements one can ascertain the width of the pons which is critical in the diagnosis of a tumor mass. A prepontine chordoma will block the prepontine cistern and air will not appear anterior to the pons and very little air will enter the chiasmatic cistern. We will look to Dr. Booth for guidance. What kind of lesions occur outside the midline of the cerebellum? Running in first place (or second) of all cerebellar tumors, (depending upon the statistical series studied) is the astrocytoma. In children these astrocytomas are frequently of grade I or II in perhaps about 85%⁸. They can be cured by resection and x-ray therapy in over 50% of cases⁹. However, on the other hand, about 15% of these are highly malignant tumors of the grade IV variety of astrocytoma or glioblastoma multiforme⁸. A hemangioendothelioma and/or a sarcoma is a possibility. Either is a cerebellar hemisphere tumor and is not common in a child this age. There is one congenital tumor that should be mentioned, and it is in the midline of the cerebellum, but can affect either hemisphere. It is a dermoid cyst. The tumor originates by inclusion of epidermal tissue when there is improper closure of the anterior neuropore. The epithelium is caught in the posterior fossa and a sinus develops between the skin and the posterior fossa. Sebaceous material is secreted into the sinus tract along with cholesterol which accumulates and a cyst forms. The tumor is rare. Recurrent meningitis is a frequent accompaniment⁸.

On the basis of what we are told in the protocol, I think that we are dealing with a lesion in the lateral portion of the right cerebellum extending more medial than that resected at operation. I think it is growing into the brain stem through the brachium pontis. I believe only a biopsy of the lesion was obtained and it could not all have been gotten because it was too far medial. A Torkildsen procedure was performed to shunt the block in the spinal fluid, but it did not work. A subsequent ventriculoatrial shunt was performed to alleviate the acute intracranial pressure and the child died a natural death in a short period of time, and as far as posterior fossa tumors in children

meninges. The hemispheric sulci were diffusely shallow and the gyri blunted in all major lobes. A Torkildsen shunt tube protruded from the right occipital pole. Examination of the base of the brain disclosed prominent ballooning of the pons with moderate enlargement of the right cerebellar peduncle. Surgical absence of a portion of the right posterior cerebellar hemisphere was evident.

Sections of brain demonstrated moderate degree of dilatation of the lateral and 3rd ventricles. The hemispheric cortex appeared normal, the subcortical white matter appeared moderately compressed. Mild lateral compression of the head of the caudate nucleus and the medial thalamic nuclei was apparent.

Sections of the brain stem demonstrated a large neoplasm virtually replacing the larger portion of the midbrain obliterating all anatomic landmarks except for the lateral portion of the left cerebral peduncle, (Fig. 6). The aqueduct of Sylvius was uni-



Fig. 6. Cross section at the level of the midbrain showing the neoplasm destroying the larger portion of the parenchyma.

dentifiable. Some of the tumor tissue was noted to extend into the caudal portion of the hypothalamic nuclei adjacent to the corpus Luysii. In the pons, the neoplastic tissue occupied the whole right half of the tegmentum and basis pontis and extended in the middle cerebellar peduncle into the medial one-third of the right cerebellar hemisphere (Fig. 7). The bulk of the left



Fig. 7. Cross section of the tumor at the level of the mid pons, infiltrating all the tegmentum and the major portion of the right cerebellar hemisphere. The 4th ventricle is obliterated by tumor.

basis pontis and the inferior portion of the tegmentum of the pons on the left side was also virtually disrupted by this neoplasm. The 4th ventricle was obliterated from its rostral end in the pons to the pontomedullary junction. This neoplastic tissue occupied the basis pontis only more caudally; at the pontomedullary junction it was not encountered. The tumor grossly appeared firm, bright red and tan in color, well demarcated from the surrounding neural tissues. Hemorrhagic areas and necrotic areas in the tumor mass were encountered at all levels.

Microscopically the neoplasm was composed of variable forms of stellate and oblong cells with varying intensity of nuclear and cytoplasmic staining, the predominant cellular form being oblong with a well formed nucleus and nucleolus and moderately visible cytoplasm with cytoplasmic processes emanating into the tissues, (Fig. 8). Microcystic formation was prominent. Several areas of hemorrhage and necrosis were encountered and the tumor cells in many areas favored the formation of rosettes around blood vessels (Fig. 9). In several areas examined the blood vessels appeared markedly hypertrophied (Fig. 10). The tumor tended to infiltrate the surrounding neural tissues with no apparent microscopic line of demarcation.

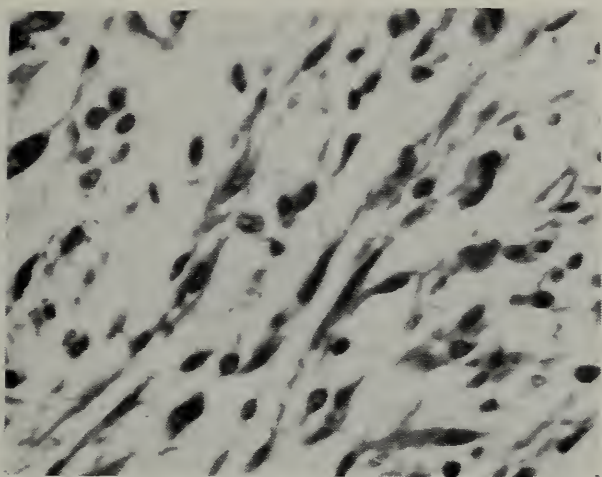


Fig. 8. Astrocytic character of the neoplasm. (H&E x250.)

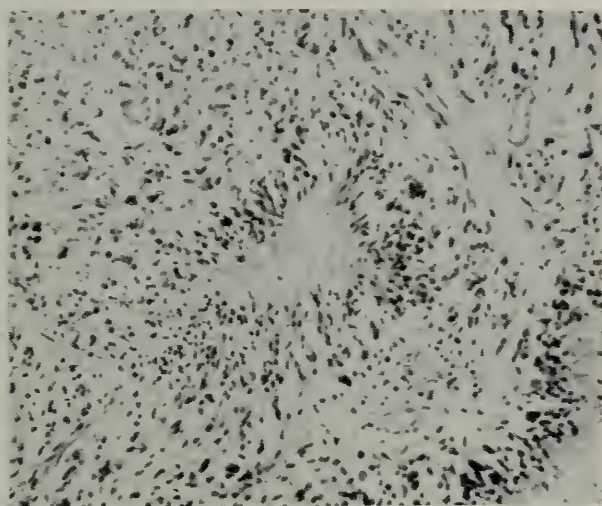


Fig. 9. Tumor cells arranged in rosette formation around blood vessels. Note necrosis at right lower corner. (H&E x100.)

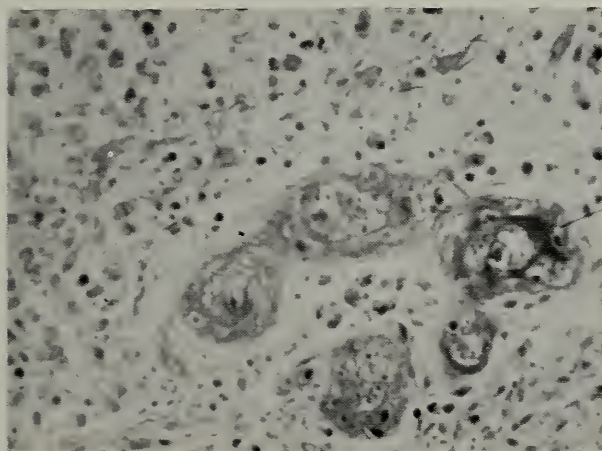


Fig. 10. Hypertrophy of blood vessels in tumor. (H&E x250.)

The gross and microscopic appearance of this neoplasm would favor a glioblastoma multiforme in the brain stem.

Bailey, Buchanan, and Bucy¹⁰ collected 154 cases of intracranial tumors in infancy and childhood, 116 of which were gliomas. Eighty per cent of these gliomas were located in the posterior fossa. Of the 313 intracranial tumors in children, collected by Ingraham and Matson¹¹, the majority of the tumors were of the glioma group predominantly in the posterior fossa. Thirty gliomas of the brain stem were tabulated but additional differentiation was not offered. Bray, Carter, and Taveras¹² collected 48 cases of tumors of the brain stem in infants and children up to the age of 16, from the files of the Presbyterian Hospital in New York from 1932 to 1956. The majority of these tumors were gliomas, appearing predominantly between the third and sixth year of life. The 30 cases of Ingraham and Matson of gliomas of the brain stem in children to 12 years of age, also had a peak at the sixth year of life. The length of survival from the time of onset of symptoms in their group averaged about 4 months.

Bray, Carter and Taveras analyzed the presenting signs and symptoms in their series as did White¹³ in a series of 44 adult cases of gliomas of the brain stem. Interestingly, both the childhood and adult variety present with identical clinical features.

In decreasing frequency the commonest presenting symptoms are those of gait disturbance, diplopia, facial weakness, headache, dysarthria, dysphagia, vomiting and generalized weakness. Of lesser frequency is hearing loss, vertigo, tinnitus, personality change, and facial numbness. In decreasing frequency the commonest signs met on physical examination were those of cerebellar signs, equilibratory and nonequilibratory, nystagmus—both horizontal and vertical, motor weakness, hyperreflexia and extensor plantar responses. The commonest cranial nerves involved were the 7th, the 6th, the 5th and then decreasingly the 10th and the 9th cranial nerves. In the majority of these cases a unilateral cranial nerve was noted to be affected.

In summary, this case is that of a 5 year old child who developed progressive neurologic signs and symptoms primarily indica-

tive of posterior fossa lesion. The presenting features and physical findings were dramatically comparable to the cases of glioma of the brain stem reported in the literature. Indeed such a feature was verified at post-mortem examination.

DR. RISING: I wanted to ask Dr. Faris a question. Do you consider the term "glioblastoma multiforme" to be synonymous with astrocytoma, grade III or IV?

DR. FARIS: Yes, it is equivalent to astrocytoma, grade IV.

Final Anatomic Diagnoses

Glioblastoma multiforme of brain stem
Pneumonitis, acute

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* * *

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From the
Executive
Director
E. Ballentine

MEDICAL DIGEST

News of Interest to Doctors in Tennessee

1970 ANNUAL MEETING . . . Memphis, April 9-11, will have something interesting and informative for every doctor. Plan now to attend and participate. THE COMPLETE ANNUAL MEETING PROGRAM IS PUBLISHED IN A SPECIAL SECTION OF THIS ISSUE OF THE TMA JOURNAL. There are many interesting scientific programs.

* * * * *

MUCH PUBLICITY ABOUT PHYSICIAN PAYMENTS . . . HEW Secretary Finch has refused to make public names of MDs paid through Medicare, and fees they receive on grounds doctors are not a party to Medicaid transactions, therefore names and payments should "be treated with confidentiality." Senator Anderson of New Mexico says he will introduce legislation to force the Social Security Administration to make names, payments public . . . You can look for the Senate Finance Committee to issue a report that will recommend fixed fees for MDs participating in Medicare . . . Since Medicare began, three and one-half years ago, two physicians have been convicted of fraud . . . During this time, 2,500 cases have been investigated by the Social Security Administration. SSA Commissioner Robert M. Ball said Medicare "pays about 30,000,000 doctors bills and 12,000,000 bills from institutional providers of services each year . . . It is clear from our investigation that the number of attempts at fraud or abuse is relatively very small." . . . Nearly half of the cases investigated by SSA resulted from clerical errors, misunderstandings or honest mistakes by physicians and health services, Ball said. To date, 13 cases have been referred to the Justice Department for criminal prosecution for fraud. There are approximately 35 other possible fraud cases being prepared . . . The Commissioner's comments and statistics contrasts sharply with recent headline reports from the Senate Finance Committee indicating that sizable numbers of physicians have been guilty of wrongdoing under Federal health care programs . . . Look for the Senate Finance Committee to continue its hearings on alleged abuses.

* * * * *

MDs PAYMENT DATA DELAYED . . . Insurance companies and Blue Plans have one year of grace before having to make reports to Internal Revenue Service on payments to MDs. IRS backed down and revised beginning date to January 1, 1971, after which carriers must report payments of \$600 or more in any year to physicians.

* * * * *

PROFESSIONAL CORPORATIONS . . . By now most of you are aware that physicians may incorporate and many may benefit by so doing. In December, the U.S. Senate by a vote of 65 to 25 defeated a Senate Finance Commit-

tee attempt to limit "lay aside" for retirement plans of professional corporations to 10% of income or \$2,500 annually . . . There will be no legal restriction this year and no additional legislation in this field until the Treasury Department makes its recommendations to equalize tax treatment of all "pension-retirement plans." The Tennessee General Assembly passed a bill in its recent session to update Tennessee's professional corporation statutes.

* * * * *

HOW MANY DOCTORS? . . . As 1969 ended there were 328,366 U.S. physicians, and 219,570 were AMA members. Of the 199,997 physicians in private practice, 168,082 were members. A recent survey shows that of the physicians who belong to state associations and are therefore eligible for AMA membership, 91% also belong to the AMA. (TMA's membership in AMA is 94%)

* * * * *

AMA LEADERSHIP HOLDS CLOSED DOOR SESSION WITH PRESIDENT NIXON . . .

High officers and trustees of the AMA composed a delegation that met recently with President Nixon in a closed door conference. Subjects discussed were: medical manpower shortages, care costs, and services to the poor . . . AMA has initiated positive programs to get manpower up, costs held, and care delivery to poor.

* * * * *

WILL NURSES PRACTICE MEDICINE? . . . AMA may soon ask that 50,000 to 75,000 nurses be permitted to practice medicine under direction of MDs. Nurses would be employed by MDs, be on fee-for-service basis, giving them more money, professional status. Plan would give MD another pair of skilled hands. Nurse would be available for house calls, checking back with MD by telephone or 2-way radio. About 700,000 nurses are employed in nursing. Some of the 300,000 not now practicing might be encouraged to return to nursing under AMA plan. AMA sees proposal as "only dramatic breakthru available to us now" to help solve manpower problems, since medical schools will not soon produce enough MDs. Legal problems would have to be determined. Plan may be presented to AMA House of Delegates in June.

* * * * *

NEWS BRIEFS . . . Ohio has a new law banning medical quackery.

American Society of Internal Medicine is studying internist reactions to detail men and to fourth class mail advertising from drug companies . . . Health field may become nation's largest industry sooner than 1975 as predicted. Construction now number one with 3.5 million employees, agriculture has 3.3 million, health field 2.9 million, up 221,300 from a year ago . . . Department of Labor figures show following changes in average prices across the nation in past two years: medical care up 12.9%, public transportation up 13%, insurance and finance cost up 21.4%, shoes up 12.7%, men's clothing up 12.8%, owning a home up 18.2%—average cost for operating a car is \$1,053 a year (\$2.88 a day), regardless of how much or how little you drive. If you drive 10,000 miles a year, add \$395 for gas, oil, other operating costs for a total of \$1,448 a year or 14½ cents a mile. Figures based on standard size 4-door sedan with automatic transmission . . . Gallop Poll found 40% of public favors legalized abortion.

Public Service

Communications Legislation

Hadley Williams, Public Service Director

MALPRACTICE INSURANCE . . . The Federal Government is concerned over the high cost of physician's professional liability insurance. HEW Secretary Finch told newsmen recently that health services would be improved if malpractice insurance premiums were not so high citing one MD who pays \$40,000 annually for coverage, and wider use could be made of paramedical personnel. Mr. Finch also indicated that the Administration is studying a plan to encourage the states to set up systems similiar to Workmen's Compensation Commissions to handle malpractice cases.

* * * * *

MILLS WANTS MEDICARE EXTENDED . . . Wilbur Mills, chairman of the powerful House Ways and Means Committee, will push for extending Medicare's hospital benefits to more than 1 million disabled workers under 65. His proposal may be included as part of a new Social Security bill his committee plans to begin drafting this month. Mills feels providing Medicare for men over 65 who are working and not doing it for disabled who are unable to work can no longer be justified. He would not cover disabled by Medicare's MDs' insurance program.

* * * * *

DENTAL PROFESSION ESTABLISHES POLITICAL ACTION COMMITTEE . . . The American Dental Political Action Committee has been established and hopes to raise \$100,000 to provide financial support on selective basis to candidates of either party. The American Medical Political Action Committee (AMPAC) and individual state committees such as Independent Medicine's Political Action Committee-Tennessee (IMPACT) are being recognized as powerful forces in national and state politics now. Dues to your state committee are minute compared to what is at stake. Join now!

* * * * *

NEW AMA FILMS AVAILABLE TO MEDICAL SOCIETIES . . . Several new films are available on loan from AMA on a variety of current topics. "Next Witness" is a film that illustrates dramatically what a physician may expect if called as a medical witness in personal injury litigation. The importance to both physician and attorney-and to the injured patient-of pre-trial preparation against cross examination in court is highlighted and the film shows how lack of preparation creates awkward and embarrassing situations in court. Also available from AMA are new films on the subject of sex education, chiropractic, students in organized medicine and food additives. Medical, legal and social ramifications of legislation on abortion will be discussed in one upcoming film.

MEDICARE INCREASES HOSPITAL UTILIZATION . . . Patients 65 and over have steadily increased their utilization of community hospital facilities during the first three years of Medicare, the American Hospital Association reports. For the first six months of Medicare, elderly admission were 18.9 per cent of total admissions. From January to June of 1969, they accounted for 21.4 percent. During the same periods, the percentage of total days of hospital care for the elderly increased from 29.8 per cent of total days of care in community hospitals to 34.4 percent. HEW says the average hospital bill for Medicare patients was \$700 at last report.

* * * * *

BUREAU OF NARCOTICS LISTS 15 DON'TS AS PHYSICIAN SAFEGUARDS . . . The Federal Bureau of Narcotics has prepared Don'ts for the Practitioner to protect him from narcotic addicts and abusers. They are:

1. Don't leave prescription blanks around: addicts may be forgers.
2. Don't write a narcotic prescription in lead pencil, or any Rx at all in pencil, since they may be changed to call for morphine.
3. Don't write narcotics as "Morphine HT $\frac{1}{2}$ # X" or "Morphine HT $\frac{1}{4}$ # 10". Several X's or zeros can be added to raise the amount. Use brackets or spelling.
4. Don't carry a large stock of narcotics in your bag. Addicts are often watching M.D.'s offices and cars.
5. Don't store your office narcotic supply unprotected, especially near a sink or washroom. Patients may ask to use these facilities.
6. Don't fall for a story from a stranger claiming an ailment that usually requires morphine. The addict can produce blood sputum; simulate bad coughs or other symptoms. Make your own diagnosis.
7. Don't give an Rx to anyone except the actual patient. Addicts have posed as nurses.
8. Don't write for large quantities of narcotics unavoidable. Diversion to addicts is profitable, as much as \$1 for $\frac{1}{4}$ grain M.S.
9. Don't prescribe narcotics on the story that another physician has been doing so. Consult that physician or hospital records.
10. Don't leave Rx's signed in blank for nurses to fill in. Many have been stolen by addicts.
11. Don't treat any ambulatory addicts. They must be under proper control; many go to several physicians at one time.
12. Don't dispense narcotics without keeping records, although bedside and office administration is permissible.
13. Don't buy your office narcotic needs on an Rx blank. The law requires that you use an official order form.
14. Don't resent a pharmacist's call for verification of an Rx. He is held responsible if forgeries are filled.
15. Don't hesitate to call an agent of the Federal Bureau of Narcotics or the Narcotics Division of the Department of Public Health if the patient is suspect. Your information will be held in strict confidence.

A class "A" Narcotic Rx should not be phoned in unless it is a true emergency. Even then, the pharmacist must have a written prescription in his or his agent's hand before he can make delivery to your patient. The pharmacist or his agent may pick up the Rx at your office or at the home before making delivery. Violations of the narcotic law may entail two to ten years imprisonment and up to a \$20,000 fine for the first offense. Second and third violations are more severe.



ARE YOU ALL SET?

135th Annual Meeting

April 8-11, 1970

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April 8, 9, 10, 11, 1970

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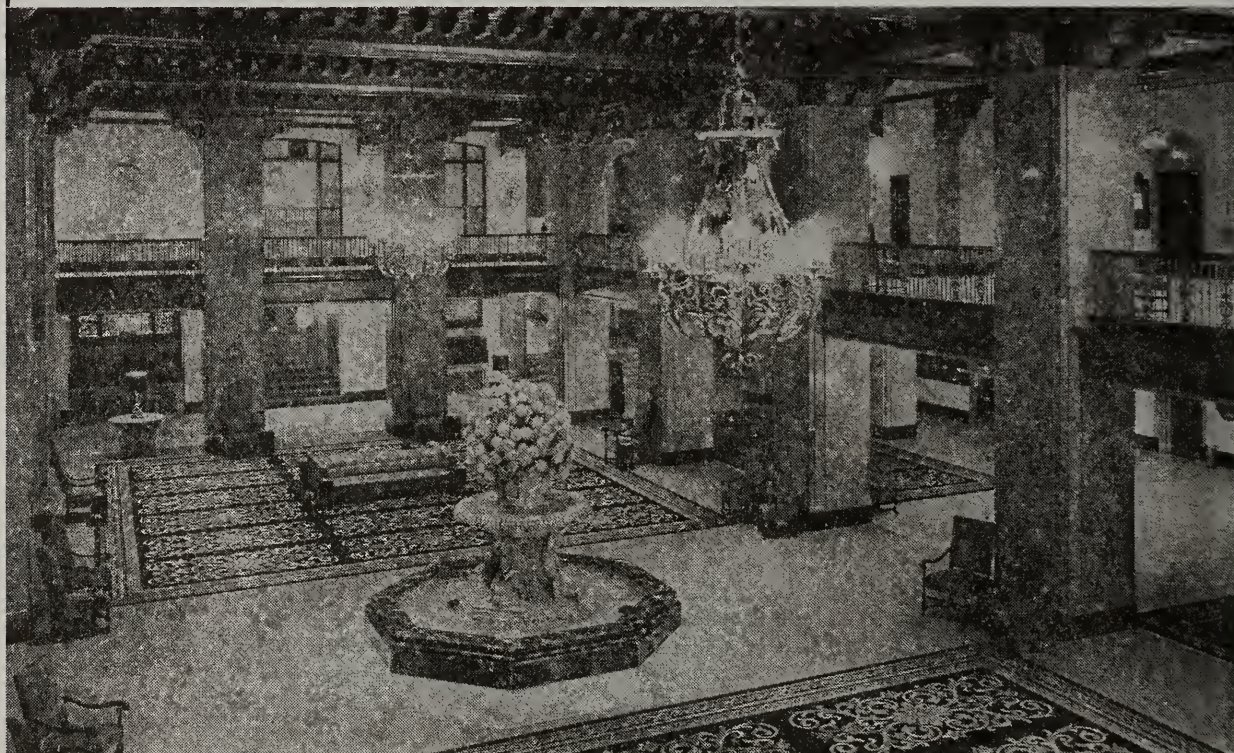
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Special Section

SCIENTIFIC PROGRAM OF THE 135TH ANNUAL MEETING OF THE TENNESSEE MEDICAL ASSOCIATION

General Information

The official program contains detailed information on the 1970 annual meeting of the Tennessee Medical Association, conducted in Memphis, Tennessee April 9-10-11, 1970.

◆ Registration

The registration desk will be located on the Main Lobby floor of the Sheraton-Peabody Hotel in Memphis. All members, visiting speakers, interns, residents, exhibitors, and guests are urged to register. Admission to all meetings and sessions, and to the exhibits is by a badge secured at the registration desk. **THERE IS NO REGISTRATION FEE.**

Programs for all activities during the Annual Meeting are available at the registration desk. Those eligible to register are: Members of the Tennessee Medical Association; physicians from other states who are members of their respective state medical associations; residents, interns, medical students and guests.

◆ Registration Hours

(All times are Central Standard Time)

Wednesday, April 8, 12:00 Noon

(Special registration for members of the House of Delegates from 12:00 Noon to 5:00 P.M.)
(Advance registration for exhibitors and early arrivals after 4:00 P.M.)

Thursday, April 9 . . 8:00 A.M. to 5:00 P.M.

Friday, April 10 . . 8:00 A.M. to 5:00 P.M.

Saturday, April 11 . 8:00 A.M. to 2:30 P.M.

◆ Annual Meeting Headquarters

Headquarters are located in the Sheraton-Peabody Hotel in Memphis, where many activities are scheduled. The specialty societies will conduct their meetings concurrently with TMA in Memphis. These and other activities will be conducted in the Sheraton-Peabody and the Downtowner Motor Inn. Specialty societies meeting outside of the Sheraton-Peabody are listed in this program under the "days" that the various societies will meet. The Woman's Auxiliary activities will be conducted in the Rivermont-Holiday Inn.

◆ TMA Headquarters Office

The TMA headquarters offices will be located during the meeting on the third floor of the Sheraton-Peabody Hotel. The room numbers will be 344-48-52-55.

A member of the staff will be available to assist you at all times. Members of the House of Delegates, Officers, and Reference Committee Chairmen can secure secretarial help when needed. Your headquarters staff is available to assist you in your needs.

J. E. BALLENTINE, *Executive Director*

L. HADLEY WILLIAMS, *Assistant Executive Director and Public Service Director*

HANK HOLDERFIELD, *Executive Assistant*

R. M. WINDHAM, *Executive Assistant and Field Representative*

MRS. CAROLYN SANDLIN, *Records and Book-keeping*

MRS. JANICE HARGIS, *Secretary*

MRS. ELVA DENNEY, *Secretary*

MRS. JUDY POE, *Secretary*

MRS. LINDA EVERSON, *Secretary*

MRS. JEAN RAGSDALE, *Admin. Secretary*

◆ President's Banquet and Social Hour

The President's Banquet will be preceded by a Social Hour sponsored by the Tennessee Medical Association, beginning at 6:00 P.M. on Friday evening, April 10, in the Sheraton-Peabody.

The BANQUET will follow at 7:00 P.M. in the Sheraton-Peabody. **TICKETS ARE AVAILABLE AT THE REGISTRATION DESK.** A limited number can be accommodated. **GET YOUR TICKETS EARLY.**

◆ Communications—

Emergency Telephones

Memphis 527-5329 and 527-5320

A blackboard will be placed in a conspicuous location on the mezzanine floor in the Sheraton-Peabody Hotel where doctors' calls will be listed. **PLEASE CHECK OFTEN WITH THE LISTINGS ON THE CALL BOARD.**

◆ Specialty Society Luncheon Tickets

Tickets to specialty society banquets and luncheons, as well as the Woman's Auxiliary affairs, can be obtained from Specialty Societies respective registration desks. **PURCHASE YOUR TICKETS AT THE TIME OF REGISTRATION.** The number that can be accommodated is limited.

◆ House of Delegates

The first session of the House of Delegates will be held on Wednesday afternoon, April 8, beginning at 4:00 P.M. in the Sheraton-Peabody Hotel. The second session will be held on Saturday, April 11, beginning at 9:00 A.M., in the Sheraton-Peabody Hotel. Reference Committees meet on Thursday, April 9, and the locations are listed below. *Any TMA member may appear before a reference committee to testify on the business before the House of Delegates.*

◆ Reference Committee Meeting Rooms

Reference Committee on Constitution and By-Laws . . Rooms 303-10 (Airlines Room)

Reference Committee on Outstanding Physician of the Year . . TMA Workrooms—Third Floor

- Reference Committee (A)
 Rooms 345-51 (Arkansas Room)
 Reference Committee (B)
 Room 216 (Mezzanine Floor)
 Reference Committee (C)
 Rooms 339-343 (Mississippi Room)
 Reference Committee (D)
 Rooms 303-07 (Tennessee Room)

All reference committees are scheduled to convene at 9:00 A.M.—April 9th.

♦ *Scientific Meetings*

The scientific presentations at the 135th annual meeting of TMA will be presented on Friday and Saturday morning, April 10 and 11. (See complete program under the "days" as listed herein.) The specialty societies meeting concurrently with the Tennessee Medical Association will conduct their scientific programs and business on April 9, 10 and 11. Please see the program listing the scientific meetings of the TMA and the specialty societies each day. Every member attending is welcome to attend any scientific meeting of any specialty society. *Of special interest will be presentations of importance and general interest by guest speakers on Friday and Saturday, April 10 and 11.* Please note topics and outstanding speakers listed in this program.

♦ *Specialty Societies*

Fifteen specialty societies are conducting their meetings concurrently with the Tennessee Medical Association in Memphis. Scientific and business sessions of the specialty societies will be conducted on April 9-10-11. SEE DETAILS IN THIS PROGRAM LISTED UNDER EACH OF THE ABOVE DATES AND UNDER "ANNOUNCEMENTS."

♦ *Woman's Auxiliary*

The Woman's Auxiliary to TMA will conduct all sessions of its annual meeting at the Holiday Inn-Rivermont at Memphis. The registration desk of the Auxiliary will be located in the Lobby of the Rivermont and all committee meetings, board meetings and general sessions will be conducted in designated rooms in the Holiday Inn-Rivermont.

♦ *Exhibit Attendance Prize*

To encourage greater physician participation in the exhibit program, the exhibit committee continues a new feature for 1970. TMA will be giving away to a lucky physician, an RCA Portable Color Television, as an *Exhibit Attendance Prize*. To qualify, each registered physician is required to visit a minimum of thirty technical exhibitors. The drawing will be held Saturday (April 11) afternoon at 1:00 P.M. Instructions for participating will be given each physician at the time of registration.

♦ *Scientific Exhibits*

There will be several scientific exhibits presented by physicians. These will also be located

on the mezzanine and in the Lobby floor of the Sheraton-Peabody Hotel.

♦ *Technical Exhibitors*

The technical exhibitors will be located in the Main Lobby and Mezzanine floors of the Sheraton-Peabody Hotel. They may be visited each day of the Annual Meeting beginning on Thursday, April 9, from 9:00 A.M. until 5:00 P.M.—and continued from 9:00 A.M. until 5:00 P.M. on Friday, April 10. The exhibits will be open from 9:00 A.M. until 3:00 P.M. on Saturday, April 11.

The exhibitors are an important part of the 135th Annual Meeting and each physician is urged to spend some time visiting and inspecting the products and services of the exhibitors. The exhibits will display many educational features of medical supply and the latest developments in scientific undertaking. Many exhibitors will offer services of interest to physicians.

Technical Exhibitors

The newest developments in pharmaceuticals, equipment and services will be on display, with full information available through trained and experienced representatives.

All physicians will find their time well spent in visiting exhibits and keeping abreast of what is new and useful. *YOUR ATTENDANCE IS URGED*, for your benefit as well as for an expression of cooperation with our exhibitors.

ABBOTT LABORATORIES	
North Chicago, Illinois	Booth 23
AMES COMPANY, INC.	
(Div. of Miles Laboratories)	
Elkhart, Indiana	Booth 30
AYERST LABORATORIES	
New York, New York	Booth 26
BLUE CROSS-BLUE SHIELD OF TENNESSEE	
Chattanooga, Tennessee	(LOBBY) Booth 6
BRISTOL LABORATORIES	
Syracuse, New York	(LOBBY) Booth 4
CARNATION COMPANY	
Los Angeles, California	Booth 56
CIBA PHARMACEUTICAL COMPANY	
Summit, New Jersey	Booth 54
COCA-COLA COMPANY	
Atlanta, Georgia	Booth 43
DePUY MANUFACTURING COMPANY	
Warsaw, Indiana	(LOBBY) Booth 13
EDISON VOICEWRITER	
Nashville, Tennessee	Booth 37
THE EMKO COMPANY	
St. Louis, Missouri	Booth 53
ENCYCLOPAEDIA BRITANNICA, INC.	
Chicago, Illinois	Booth 32
EQUITABLE LIFE ASSURANCE SOCIETY	
Nashville, Tennessee	Booth 20
EQUITY FUNDING CORPORATION	
Nashville, Tennessee	Booth 41
EXERCYCLE OF MEMPHIS	
Memphis, Tennessee	Booth 34
FARRINGER & COMPANY	
Nashville, Tennessee	Booth 38

GEIGY PHARMACEUTICALS Ardsley, New York	Booth 18
GENERAL MEDICAL CORPORATION Tafel, Knoxville & Southeastern Surgical Supply Companies Richmond, Virginia	Booth 55
IMPERIAL FASHIONS Los Angeles, California	Booth 33
INVESTMENT RETIREMENT TRUST (Denby Brandon Company) Memphis, Tennessee	Booth 28
KAY SURGICAL SUPPLY COMPANY Memphis, Tennessee	Booth 31
ELI LILLY AND COMPANY Indianapolis, Indiana	Booth 47
MEAD JOHNSON LABORATORIES Evansville, Indiana	Booth 51
MEMPHIS REGIONAL MEDICAL PROGRAM Memphis, Tennessee (LOBBY)	Booth 12
MERCK SHARP & DOHME West Point, Pennsylvania	Booth 19
MERRILL LYNCH, PIERCE, FENNER AND SMITH Memphis, Tennessee	Booth 17
MUTUAL BENEFIT LIFE INSURANCE COMPANY (Dunn-Lemly-Sizer) Nashville, Tennessee	Booth 42
NASHVILLE SURGICAL SUPPLY COMPANY Nashville, Tennessee	Booth 36
PARKE, DAVIS AND COMPANY Detroit, Michigan	Booth 22
PFIZER LABORATORIES New York, New York	Booth 29
WM. P. POYTHRESS & COMPANY, INC. Richmond, Virginia	Booth 48
ROYAL CROWN COLA COMPANY Atlanta, Georgia	Booth 25
W. B. SAUNDERS COMPANY Philadelphia, Pennsylvania	Booth 27
SCHERING LABORATORIES Union, New Jersey	Booth 46
G. D. SEARLE & COMPANY Chicago, Illinois	Booth 44
SMITH, MILLER AND PATCH, INC. New York, New York	Booth 52
SMITH, REED, THOMPSON & ELLIS COMPANY Nashville, Tennessee	Booth 57
SOUTHERN MEDICAL ASSOCIATION Birmingham, Alabama	Booth 21
E. R. SQUIBB & SONS, INC. New York, New York	Booth 45
TENNESSEE GUILD OPTICIANS Nashville, Tennessee	Booth 35
TENNESSEE MID-SOUTH REGIONAL MEDICAL PROGRAM Nashville, Tennessee	Booth 49-50
TENNESSEE SECURITIES, INC. Nashville, Tennessee	Booth 24
THE UPJOHN COMPANY Kalamazoo, Michigan	Booth 39
WARNER CHILCOTT LABORATORIES Morris Plains, New Jersey	Booth 40

VISIT THE EXHIBITS

All scientific meetings will be recessed TWICE FOR THIRTY MINUTES ON EACH DAY to give doctors an opportunity to visit with the exhibitors.

HANK HOLDERFIELD
Exhibit Manager

ANNOUNCEMENTS

SPECIAL EVENTS AND FEATURES

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PRESIDENT'S BANQUET SHERATON-PEABODY HOTEL

Friday, April 10—7:00 P.M.

Social Hour—6:00 P.M.

Sponsored by TMA

Francis H. Cole, M.D., President,
Presiding

Introduction of President-Elect—

Tom E. Nesbitt, M.D.

Special Awards:

Presenting Tennessee's Outstanding Physician
of the Year—By: R. L. DeSaussure, M.D.,
Speaker of the House of Delegates

Presenting Health Project Contest Winner—
By: Robert L. Chalfant, M.D., Treasurer

Presenting the Distinguished Service Award—
By: John H. Saffold, M.D., Chairman, Board
of Trustees

The banquet is for TMA members, their wives
and guests. Join your friends in dining and
dancing to the great music of Berl Olswanger
and his orchestra.

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Public Health Council

The meeting of the Public Health Council will
be held in Room 303-07 (Tennessee Room) at
the Sheraton-Peabody Hotel on Friday, April
10. The meeting begins at 10:00 A.M. Members
of the Public Health Council will be advised of
other details of the meeting.

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Please Reserve Luncheon Tickets Early

A number of the specialty societies meeting
with TMA will sponsor luncheons during the an-
nual meeting.

PLEASE MAKE RESERVATIONS FOR
LUNCHEONS YOU ARE PLANNING TO AT-
TEND.

These should be made with the secretary of
the specialty society.

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Tennessee Chapter—American College of Surgeons—Banquet

The Tennessee Chapter of the American Col-

lege of Surgeons will present their Social Hour at 6:30 P.M., and the banquet at 7:30 P.M. on Thursday evening, April 9 in the Continental Ballroom of the Sheraton-Peabody Hotel.

TMA MEMBERS AND THEIR GUESTS ARE INVITED TO ATTEND THE SOCIAL HOUR AND BANQUET.

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NOTICE

HOUSE OF DELEGATES

First Session

Wednesday Afternoon

April 8

4:00 P.M.

Sheraton-Peabody Hotel

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NOTICE

Re: Scientific Presentations

The scientific presentations of all of the specialty societies meeting concurrently with the Tennessee Medical Association, are open to all physicians registered at the annual meeting. Attend the meeting of your choice.

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Technical Exhibits

The technical exhibits are located on the Lobby and Mezzanine floors of the Sheraton-Peabody Hotel. They are open daily at 9:00 A.M.

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TMA Board of Trustees Meeting

The TMA Board of Trustees will meet in Room 214 of the Sheraton-Peabody Hotel at 9:00 A.M. on Sunday, April 12.

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Woman's Auxiliary to the Tennessee Medical Association

42nd Annual Convention

April 9-11, 1970

**Holiday Inn-Rivermont
Memphis**

The Woman's Auxiliary to TMA will conduct all sessions of its annual meeting in the Holiday Inn-Rivermont in Memphis. The registration desk will be located in the lobby of the hotel and all general sessions, committee meetings and board meetings will be conducted in designated rooms in the hotel.

Arts and Crafts Exhibit

The Arts and Crafts Exhibit of the Woman's Auxiliary will be conducted in the Holiday Inn-Rivermont Hotel. Arts and Crafts will be accepted Thursday, April 9 from 3:00 to 6:00 P.M.,

and on Friday, April 10, from 8:00 A.M. to 12:00 Noon. Doctors and their families are urged to participate in the exhibit.

Boutique and Surprise Shoppe—AMA- ERF Fund

In connection with the Arts and Crafts Exhibit there will be a Boutique and Surprise Shop to augment Tennessee's contribution to the AMA-ERF Fund. Doctors, do come with your wives—or if alone, come purchase her gift—you will find the very special gift to take home from Convention.

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TENNESSEE OBSTETRICAL AND GYNECOLOGICAL SOCIETY

THURSDAY, APRIL 9, 1970

7:00 P.M.

BANQUET

*Grand Salon (East)—
Downtowner Motor Inn*

TENNESSEE CHAPTER AMERICAN COLLEGE OF SURGEONS

Thursday, April 9, 1970

12:00 Noon

COUNCIL LUNCHEON

Room 202

Sheraton-Peabody Hotel

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COLOR TV-PRIZE

Don't forget to obtain your instructions and card to be punched by the exhibitors so that you will have a chance on the drawing for the portable color television set to be given away. The drawing will be held Saturday Afternoon, April 11th. Complete details can be obtained at the registration desk.

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TENNESSEE—TRAUMA COMMITTEE

Friday, April 10, 1970

12:00 Noon

LUNCHEON

Room 202

Sheraton-Peabody Hotel

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Vanderbilt Reception

Date: Thursday, April 9, 1970—4:30-6:00 P.M.

Host: Dr. Randolph Batson, Dean of the Vanderbilt University School of Medicine

Place: Plantation Room—No. 1454, Downtowner Motor Inn, Memphis

Vanderbilt Medical Alumni and guests cordially invited.

PROGRAM

Thursday, April 9, 1970

SPECIALTY SOCIETIES

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TENNESSEE CHAPTER— AMERICAN COLLEGE OF SURGEONS

THURSDAY, APRIL 9, 1970

12:00 Noon

COUNCIL

Luncheon Meeting
Room 202—Sheraton-Peabody Hotel

GENERAL MEETING

Forest Room Sheraton-Peabody Hotel

(All physicians attending the TMA meeting are invited to attend the scientific sessions of the Tennessee Chapter, American College of Surgeons.)

SCIENTIFIC PROGRAM

RUSSELL H. PATTERSON, JR., M.D., *President-Elect, Presiding*

1:00 P.M.

"The Role of Renin in Coarctation of the Aorta"

By CHARLES VAN WAY, M.D., Nashville

1:15 P.M.

"Metabolic Changes in Morbid Obesity After Massive Intestinal By-Pass"

By: VERNE C. LANIER, M.D., Nashville

1:30 P.M.

"Arterial Injury Secondary to the Use of the Fogarty Catheter"

By: JAMES W. CARTER, M.D., Nashville

1:45 P.M.

"Dynamics of Peripheral Arterial Embolism"—Movie

By ROBERT M. MILES, M.D., Memphis

2:00 P.M.

"An Appraisal of the Tanner—9 Loop in Bilioes Vomiting"

By: JOHN E. KESTERSON, M.D., Knoxville

2:15 P.M.

Intermission—Visit Exhibits

SCIENTIFIC PROGRAM

(continued)

JOHN E. KESTERSON, M.D., *President, Presiding*

2:45 P.M.

"Management of Blunt Lacerations of the Liver"

By: ROBERT W. NEWMAN, M.D., Knoxville

3:00 P.M.

"Traumatic Rupture of Thoracic Aorta—Recognition and Surgical Treatment"

By: ROBERT L. RICHARDSON, M.D., Memphis

3:15 P.M.

"Surgical Management of Hiatus Hernia"

By: TURLEY FARRAR, M.D., Memphis

3:30 P.M.

"The Use of an Acrylic External Splint after Mandibular Resection"

By: IRVIN D. FLEMING, M.D., Memphis
(Presentations are limited to 10 minutes and 3 minutes for discussion.)

3:45 P.M.

GUEST LECTURER

JOHN L. MADDEN, M.D., Clinical Professor of Surgery, New York Medical College, Director of Surgery and Attending Surgeon, St. Clare's Hospital, New York City, New York

"Considerations in Surgery of the Common Bile Duct"

4:30 P.M.

Business Meeting

6:30 P.M.

SOCIAL HOUR

Continental Ballroom—Sheraton-Peabody

7:30 P.M.

BANQUET

Continental Ballroom—Sheraton-Peabody

TMA members and their guests are invited to attend the Social Hour and Banquet. Make reservations early. Tickets available at registration desk.

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TENNESSEE STATE ORTHOPAEDIC SOCIETY

THURSDAY, APRIL 9, 1970

Room 214 Sheraton-Peabody Hotel

SCIENTIFIC PROGRAM

9:00 A.M.

"Roentgenographical Features and Surgical Procedures for Patients with Paget's Disease"By: R. A. CALANDRUCCIO, M.D. (and)
DON BECK, M.D., Campbell Clinic, Memphis

9:30 A.M.

"Ewing's Sarcoma"

By: IRVIN FLEMING, M.D., Memphis

10:00 A.M.

"Neoplasia of Bone"By: JOHN C. IVINS, M.D., Mayo Clinic, Rochester,
Minnesota
(By Invitation)**Intermission—Visit Exhibits**

11:00 A.M.

"Disappearing Bone—A Twenty-Year Follow-up"

By: MOORE MOORE, JR., M.D., Memphis

11:30 A.M.

"Iatrogenic Tibial Defects"

By: ERNST DEHNE, M.D., VA Hospital, Memphis

12:00 Noon

LUNCHEON**Room 200—Sheraton-Peabody Hotel****SCIENTIFIC PROGRAM**

(continued)

Room 200 Sheraton-Peabody Hotel

1:00 P.M.

"High Tibial Osteotomy"

By: WILLIAM L. MOFFATT, M.D., Memphis

1:30 P.M.

"Herniated Nucleus Pulposus in Children"By: J. WILLIAM HILLMAN, M.D. (and) JAMES T.
CRAIG, M.D., Vanderbilt University Hospital,
Nashville

2:00 P.M.

"Anterior Dislocation of the Shoulder"By: T. DAVID SISK, M.D., Campbell Clinic, Mem-
phis

2:30 P.M.

"X-ray Changes Associated with Recurrent Shoulder Dislocations"By: JOHN F. CONNOLLY, M.D., Vanderbilt Univer-
sity Hospital, Nashville**Intermission—Visit Exhibits**

3:15 P.M.

"Crush Injuries of the Foot"By: CHARLES W. EMERSON, JR., M.D. Vanderbilt
University Hospital, Nashville

3:45 P.M.

"Technique of Fusion C1-C2"—MovieBy: ARTHUR L. BROOKS, M.D., Vanderbilt Uni-
versity Hospital, Nashville

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**TENNESSEE ACADEMY OF
OPHTHALMOLOGY &
OTOLARYNGOLOGY****THURSDAY, APRIL 9, 1970**

12:00 Noon

Venetian Room Sheraton-Peabody Hotel**LUNCHEON AND PANEL DISCUSSION**Panelists: ALSTON CALLAHAN, M.D.,
Birmingham, Ala.
DAN B. JONES, M.D.,
Nashville
J. WESLEY MCKINNEY, M.D.,
Memphis**OPHTHALMOLOGY SECTION****Venetian Room Sheraton-Peabody Hotel****SCIENTIFIC PROGRAM**

1:10 P.M.

Meeting Called to Order

By: RALPH S. HAMILTON, M.D., President

1:15 P.M.

**"Vitreous Traction—The Key to Retinal Sur-
gery"**

By: DAVID MEYER, M.D., Memphis

1:35 P.M.

**"Trivial Ocular Trauma Followed by Optic
Atrophy"**By: WILKES H. DAVIS, M.D., ROBERT C. NEVINS,
M.D., and JAMES H. ELLIOTT, M.D., Nashville

1:45 P.M.

GUEST SPEAKERALSTON CALLAHAN, M.D., Birmingham, Alabama
"Plastic Ophthalmic Surgery Up To Date" Part-I

2:45 P.M.

Intermission—Visit Exhibits

3:00 P.M.

"Atypical Ocular Signs as the Initial Manifestation of Serious Systemic Diseases"

By: ALICE R. DEUTSCH, M.D., Memphis

3:20 P.M.

"The Early Diagnosis and Management of Endophthalmitis"

By: DAN B. JONES, M.D., Nashville

3:40 P.M.

"A Study on the Intraocular Pressure of Orally Administered Anticholinergic Drugs in Patients with Wide-Angle Glaucoma, Narrow-angle Glaucoma, Duodenal Ulcer and Normals"

By: ROGER L. HIATT, M.D., BUTLER FULLER, M.D., LLOYD SMITH, M.D., and JONATHAN SCHWARTZ, M.D., Memphis

4:00 P.M.

"The Theory and Application of Hypnosis in the Daily Practice of Ophthalmology"

By: FLETCHER GOODE, M.D., Memphis

4:20 P.M.

"External Silicone Sponge Buckles with Full Thickness Cryotherapy"

By: WILLIAM R. MORRIS, M.D., and RALPH S. HAMILTON, M.D., Memphis

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**TENNESSEE DISTRICT BRANCH—
AMERICAN PSYCHIATRIC
ASSOCIATION****THURSDAY, APRIL 9, 1970****LUNCHEON**

12:00 Noon

Continental Ballroom**Sheraton-Peabody Hotel****SCIENTIFIC PROGRAM****Louis XVI Room Sheraton-Peabody Hotel**

9:00 A.M.

"The Human Pharmacology and Toxicology of Marihuana"

By: DONALD JASENSKI, M.D., Addiction Research Center, U.S. Public Health Service, Lexington, Kentucky

10:00 A.M.

"Amphetamine: Addiction to a Nonaddicting Drug"

By: JOHN D. GRIFFITH, M.D., Department of

Pharmacology and Psychiatry, Vanderbilt University Medical School, Nashville, Tennessee

Adjourn to visit the Exhibitors

6:30 P.M.

**SOCIAL HOUR & COCKTAILS
Holiday Inn-Rivermont**

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**TENNESSEE ACADEMY OF
PREVENTIVE MEDICINE AND
PUBLIC HEALTH**

and

**TENNESSEE INDUSTRIAL
MEDICAL ASSOCIATION****THURSDAY, APRIL 9, 1970****Room 215****Sheraton-Peabody Hotel****SCIENTIFIC PROGRAM**

1:00 P.M.

"Contact Dermatitis"

By: BONNIE HALL, M.D., Memphis

PANEL DISCUSSION**"Air Pollution"**Subject: **"Air Pollution—Its Economic Effects"**

By: MR. GENE WELSH, Regional Program Director, Consumer Protection and Environmental Health Services, National Air Pollution Control Administration

Subject: **"Air Pollution and Human Illness"**

By: JOHN F. FINKLEA, M.D., Chief, Ecological Research Branch, Division of Health Effects Research, Department of Health Education and Welfare

Intermission—Visit Exhibits

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**TENNESSEE OBSTETRICAL AND
GYNECOLOGICAL SOCIETY****THURSDAY, APRIL 9, 1970**

7:00 P.M.

BANQUET**Grand Salon (East)—Downtowner Motor Inn**

PROGRAM

Friday, April 10, 1970

SCIENTIFIC MEETINGS

General Scientific Program

Continental Ballroom

Sheraton-Peabody Hotel

Presiding: WM. H. EDWARDS, M.D., Nashville,
Vice-President, Tennessee Medical
Association

9:00 A.M.

SYMPOSIUM ON MODERN TREATMENT OF UREMIA

Subject: "Medical Management of the Severely
Azotemic Patient Prior to Dialysis"

By: ROBERT J. KELLEY, M.D., Director,
Artificial Kidney Center and Assis-
tant Professor of Nephrology, Uni-
versity of Tennessee College of
Medicine, Memphis

9:45 A.M.

Subject: "End Stage Uremia—Dialysis and
Transplantation"

By: H. EARL GINN, M.D., Chief, Ne-
phrology Division and Associate
Professor of Medicine and Uro-
logy, Vanderbilt University Medi-
cal Center, Nashville

10:30 A.M.

Intermission—Visit Exhibits

11:00 A.M.

ADDRESS THE HONORABLE BUFORD ELLINGTON GOVERNOR STATE OF TENNESSEE

(Governor Ellington will be introduced by
Francis H. Cole, M.D., President, Tennessee
Medical Association.)

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SPECIALTY SOCIETIES

TENNESSEE STATE ORTHOPAEDIC SOCIETY FRIDAY, APRIL 10, 1970

Room 200 Sheraton-Peabody Hotel

SCIENTIFIC PROGRAM

1:00 P.M.

"Implications of Medicaid with Particular Refer-
ence to Crippled Children"

By: R. H. HUTCHESON, M.D., M.P.H., Franklin,
Tennessee (By Invitation)

2:00 P.M.

"Orthopaedic Surgery in Equatorial Africa"

By: EUGENE M. REGEN, JR., M.D., Nashville

2:30 P.M.

Orthopaedic in Indonesia"

By: ROBERT J. SMITH, M.D., Jackson

Intermission—Visit Exhibits

3:00 P.M.

"Pigmented Lesions of the Skin"

By: JOHN C. IVINS, M.D., Mayo Clinic, Rochester,
Minnesota

3:45 P.M.

"Interesting Variations of Innervation of the
Forearm and Hand of Clinical Significance"

By: LEE MILFORD, M.D., Campbell Clinic, Mem-
phis

4:15 P.M.

"Clinical Significance of the Electromyogram"

By: JOHN D. HUFFMAN, M.D., Methodist Hospital,
Memphis

4:45 P.M.

"Fat Embolism"

By: J. WILLIAM HILLMAN, M.D., Vanderbilt Uni-
versity Hospital, Nashville

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TENNESSEE ACADEMY OF OPHTHALMOLOGY & OTOLARYNGOLOGY FRIDAY, APRIL 10, 1970

Forest Room Sheraton-Peabody Hotel

11:00 A.M.

BUSINESS MEETING

12:00 Noon

LUNCHEON AND PANEL DISCUSSION

Panelists: ALSTON CALLAHAN, M.D.,
Birmingham, Ala.
DAN B. JONES, M.D.,
Nashville
J. WESLEY MCKINNEY, M.D.,
Memphis

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OPHTHALMOLOGY SECTION

Forest Room Sheraton-Peabody Hotel

SCIENTIFIC PROGRAM

1:10 P.M.

Meeting Called to Order

By: L. ROWE DRIVER, M.D., Vice-President

1:15 P.M.

"The Electroretinogram: Some Clinical Illustrations Concerning Its Usefulness and Limitations"

By: MILAM S. COTTEN, M.D., Memphis

1:35 P.M.

"Corneal Temperature Measurement"

By: JERRE M. FREEMAN, M.D., Memphis

1:45 P.M.

GUEST SPEAKER

ALSTON CALLAHAN, M.D., Birmingham, Ala.

"Plastic Ophthalmic Surgery Up To Date"—Part II

2:45 P.M.

Intermission—Visit Exhibits

3:00 P.M.

"Recession of the Superior Levator for Proptosis"—Movie

By: DALE A. TEAGUE, M.D., Knoxville

3:20 P.M.

"Results of Cyclodiathermy Procedures"By: JOHN M. OMOHUNDRA, III, M.D., and
DAN B. JONES, M.D., Nashville

3:40 P.M.

"Cause of Penetrating Keratoplasty Failure"

By: ALEX S. DE LEON, M.D., JAMES H. ELLIOTT, M.D., and GEORGE W. BOUNDS, JR., M.D., Nashville

4:00 P.M.

CASE REPORTS**"Necrotizing Nodular Scleritis Treated with Graft of Autogenous Fascia Lata"**

By: I. LEE ARNOLD, M.D., and JEMISON BOWERS, M.D., Chattanooga

4:10 P.M.

"Reverse Latent Nystagmus"—MovieBy: FRANCISCO M. HONRUBIA, M.D. and
DAN B. JONES, M.D., Nashville

4:20 P.M.

"Osteopetrosis, or Albers-Schonberg Disease"

By: PHILLIP UTLEY, M.D., Memphis

★ ★ ★

OTOLARYNGOLOGY SECTION

Room 215 Sheraton-Peabody Hotel

SCIENTIFIC PROGRAM

1:30 P.M.-4:00 P.M.

Five short clinical papers, speakers to be announced.

TENNESSEE SOCIETY OF PLASTIC AND RECONSTRUCTIVE SURGEONS

FRIDAY, APRIL 10, 1970

Room 215 Sheraton-Peabody Hotel

12:00 Noon

LUNCHEON

1:00 P.M.

SCIENTIFIC PROGRAM**"Electrical Burns of the Hand"**

By: ROBERT C. REEDER, M.D., Memphis

1:15 P.M.

"Baggy Eyelids—The Pros and Cons of Surgical Treatment"

By: MCCARTHY DEMERE, M.D., Memphis

1:30 P.M.

"Surgical Repair of Hypospadias"

By: GREER RICKETSON, M.D., Nashville

1:45 P.M.

"Healing of Severed Arterial Ends and Reestablishment of Circulation without Arterial Suture"—Case Report

By: BEVERLY DOUGLAS, M.D., Nashville

2:00 P.M.

Intermission—Visit Exhibits

2:30 P.M.

"Surgery of Maxillo-Facial Injuries"By: JUAN NOSTRI, M.D. (and)
DONALD J. RUSSELL, M.D., Chattanooga

2:45 P.M.

"A New Suture Material: A Preliminary Report"By: JOHN W. FROST, M.D. (and)
WM. M. COCKE, JR., M.D., Nashville

3:00 P.M.

"Rhinoplasty"

By: Anthony Jerome, M.D., Memphis

3:15 P.M.

"Silicone Implants"

By: JAMES W. WALKER, M.D., Memphis

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TENNESSEE—TRAUMA COMMITTEE

FRIDAY, APRIL 10, 1970

10:00 A.M.

Scientific Meeting

Airlines Room (303-10)—Sheraton-Peabody

12:00 Noon
LUNCHEON

Room 202—Sheraton-Peabody

★ ★ ★

**TENNESSEE OBSTETRICAL AND
GYNECOLOGICAL SOCIETY**

FRIDAY, APRIL 10, 1970

Room 214 Sheraton-Peabody Hotel

12:00 Noon

Luncheon and Business Meeting

2:00 P.M.

SCIENTIFIC PROGRAM

The scientific program of the Tennessee Obstetrical and Gynecological Society will be combined with the Tennessee Diabetes Association, beginning at 2:00 P.M. in the Grand Salon (West) of the Downtowner Motor Inn. See combined scientific program, Page 28.

6:00 P.M.

SOCIAL HOUR

Grand Salon (East)—Downtowner Motor Inn

★ ★ ★

**TENNESSEE DIABETES
ASSOCIATION**

FRIDAY, APRIL 10, 1970

Grand Salon (East) Downtowner Motor Inn

12:30 P.M.

LUNCHEON

1:15 P.M.

GUEST SPEAKER

**GEORGE D. MOLNAR, M.D., MAYO CLINIC,
ROCHESTER, MINNESOTA**

"Biochemical and Clinical Aspects of Brittle Diabetes; Studies with Continuous Automated Blood Glucose Analysis in Ambulatory Fed Subjects"

The scientific program of the Tennessee Diabetes Association will be combined with the Tennessee Obstetrical and Gynecological Society, beginning at 2:00 P.M. in the Grand Salon (West) of the Downtowner Motor Inn.

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**TENNESSEE DIABETES
ASSOCIATION**

(and)

**TENNESSEE OBSTETRICAL AND
GYNECOLOGICAL SOCIETY**

FRIDAY, APRIL 10, 1970

Grand Salon (West) Downtowner Motor Inn

COMBINED SCIENTIFIC PROGRAM

Panel Discussion

"Diabetes and Pregnancy"

2:00 P.M.

"The Pregnant Diabetic"

By: CHARLES R. SHUMAN, M.D., Professor of Medicine and Chief of Metabolic Section, Temple University, Philadelphia, Pa.

2:30 P.M.

"Obstetrical Aspects of Pregnancy with Diabetes"

By: JOHN W. GREENE, JR., M.D., Professor of Obstetrics and Gynecology and Chairman of the Department, University of Kentucky Medical Center, Lexington

3:00 P.M.

"Infant of the Diabetic Mother"

By: James N. Etteldorf, M.D., Professor of Pediatrics, University of Tennessee School of Medicine; and Shane Roy, III, M.D., LeBonheur Children's Hospital, Memphis

3:30 P.M.

Question and Answer Session

4:00 P.M.

Tennessee Diabetes Association

BUSINESS MEETING

(Members Only)

★ ★ ★

**TENNESSEE THORACIC SOCIETY
FRIDAY, APRIL 10, 1970**

Room 216 Sheraton-Peabody Hotel

2:00 P.M.

Welcome—Introductions

H. EDWARD GARRETT, M.D., President, Memphis

SCIENTIFIC PROGRAM

"Rheumatoid Lung Disease"

By: HARRY B. BLUMENFELD, M.D., Memphis

"Transplantation of the Human Lung"

By: FIKRI ALICAN, M.D., University of Mississippi Medical Center, Jackson, Mississippi

Intermission—Visit Exhibits

3:30 P.M.

**SYMPOSIUM ON
DIAGNOSIS AND MANAGEMENT
OF CHRONIC OBSTRUCTIVE
LUNG DISEASE**

Moderator: HARRY L. DAVIS, M.D., Memphis
Pathophysiology: HARRY L. DAVIS, M.D.

Diagnosis: WILLIAM A. POTTER, M.D., Memphis
Medical Management: SAM M. TICKLE, M.D.,
Memphis

Surgical Management: S. GWIN ROBBINS, M.D.,
Memphis

Questions and Floor Discussion

TENNESSEE NEUROSURGICAL SOCIETY

FRIDAY, APRIL 10, 1970

Mississippi Room (339-343)

Sheraton-Peabody Hotel

SCIENTIFIC PROGRAM

1:30 P.M.

Round Table Discussion

**Subject: "Economic Factors in the Practice of
Neurological Surgery in Tennessee"**

**Moderator: WILLIAM F. MEACHAM,
M.D., Nashville**

**Panelists: AUGUSTUS McCRAVEY, M.D.,
Chattanooga**

**A. ROY TYRER, JR., M.D.,
Memphis**

**JOE D. BEALS, M.D.,
Knoxville**

3:15 P.M.

Intermission—Visit Exhibits

3:30 P.M.

BUSINESS MEETING

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WOMAN'S AUXILIARY TO THE TENNESSEE MEDICAL ASSOCIATION

FRIDAY, APRIL 10, 1970

Holiday Inn-Rivermont Hotel

PROGRAM

8:00 A.M.-5:00 P.M.

Registration

Lobby—Holiday Inn-Rivermont

8:00 A.M.-9:15 A.M.

Pre-Convention Board Breakfast

9:30 A.M.-12:00 Noon

General Business Session

Holiday Inn-Rivermont Hotel

12:15 P.M.-1:45 P.M.

LUNCHEON AND PROGRAM

2:00 P.M.-3:30 P.M.

Special Committee Meetings

(Awards, Finance, Revisions)

President's Suite

TEA

(Time and place to be announced)

Arts and Crafts Exhibit and Hospitality Rooms
(Check registration desk for rooms)

6:00 P.M.

TMA President's Social Hour

Venetian Room Sheraton-Peabody Hotel

7:00 P.M.

TMA BANQUET

Continental Ballroom

9:30 P.M.

DANCE

Venetian Room

PROGRAM

Saturday, April 11, 1970

9:00 A.M.

HOUSE OF DELEGATES

Forest Room

Sheraton-Peabody Hotel

General Scientific Program

Continental Ballroom Sheraton-Peabody Hotel

**Presiding: JOE E. TITTLE, M.D., Oak Ridge, Vice-
President, Tennessee Medical Assoc-
iation**

9:00 A.M.

PANEL ON

LEUKEMIA AND OTHER MALIGNANCIES

**Moderator: CHARLES B. PRATT, M.D.,
St. Jude Children's Research Hos-
pital, Memphis**

**Subject: "Chemotherapy of Leukemia, Lympho-
sarcoma, Rhabdomyosarcoma, and Ret-
inoblastoma"**

By: CHARLES B. PRATT, M.D.

**St. Jude Children's Research Hos-
pital, Memphis**

**Subject: "Chemotherapy of Wilms' Tumor, Neu-
roblastoma, and Hodgkin's Disease"**

By: IRVIN D. FLEMING, M.D.

**St. Jude Children's Research Hos-
pital, Memphis**

**Subject: "Chemotherapy of Melanoma, Breast
Cancer, and Colorectal Cancer"**

By: VERNON H. REYNOLDS, M.D.

**Vanderbilt University School of
Medicine, Nashville**

10:15 A.M.

Intermission—Visit Exhibits

10:45 A.M.

SYMPOSIUM ON

PROFESSIONAL LIABILITY

**Moderator: MR. M. K. CHEW, Attorney, Shelby
Ohio**

Subject: "So You Have Been Sued"

**By: MR. DAN MCGUGIN, Attorney,
Nashville**

Subject: "Surgical Hazards from a Legal Standpoint"

By: MR. JOHN THOMASON, Attorney,
Memphis

Subject: "The Importance and Technique of Keeping Proper Medical and Surgical Records"

By: MR. RALPH FARMER, Attorney,
Memphis

★ ★ ★

SPECIALTY SOCIETIES

TENNESSEE RADIOLOGICAL SOCIETY

SATURDAY, APRIL 11, 1970

Room 215 Sheraton-Peabody Hotel

11:30 A.M.

LUNCHEON

1:00 P.M.-3:00 P.M.

BUSINESS MEETING

Intermission—Visit Exhibits

3:30 P.M.-5:00 P.M.

SCIENTIFIC PROGRAM

3:30 P.M.-4:15 P.M.

GUEST SPEAKER

Frank V. Comas, M.D.

Director of Radiotherapy, Department of Radiology, University of Tennessee Memorial Research Center and Hospital, Memphis

"Recent Advances in Radiation Therapy"

4:15 P.M.-5:00 P.M.

"Diagnosis and Management of Renovascular Hypertension"

By: HENRY BURKO, M.D., Professor of Radiology (and) JOHN FOSTER, M.D., Professor of Surgery Vanderbilt University Medical Center, Nashville

6:30 P.M.

COCKTAIL HOUR

Forest Room—Sheraton-Peabody Hotel

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TENNESSEE STATE SOCIETY OF ANESTHESIOLOGISTS

SATURDAY, APRIL 11, 1970

Room 214 Sheraton-Peabody Hotel

12:00 Noon

Luncheon

SCIENTIFIC PROGRAM

1:00 P.M.

"Intermittent Methoxyflurane Analgesia in Obstetrics"

By: PAUL C. KEMMERLY, M.D., Nashville (and) RUTH E. DINKINS, M.D., Memphis

1:30 P.M.

Guest Speaker

GUNTER CORSEN, M.D., Professor and Chairman, Department of Anesthesiology, University of Alabama, Birmingham

"Ketamine—A New Approach to Anesthesia"

2:30 P.M.

"Unusual Anesthesia Problems"

By: A Panel of Selected Participants, headed by YUMAS ERYASA, M.D., Nashville

4:00 P.M.

Business Session

SOCIAL HOUR

6:00 P.M.

Louis XVI Room Sheraton-Peabody Hotel

BANQUET

7:00 P.M.

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TENNESSEE SOCIETY OF PATHOLOGISTS

SATURDAY, APRIL 11, 1970

Room 216 Sheraton-Peabody Hotel

12:00 Noon

Dutch Treat Luncheon SCIENTIFIC PROGRAM

1:00 P.M.

"The Role of the Pathologist in the Modern Clinical Laboratory"

By: C. H. ALTSHULER, M.D., Pathologist, St. Joseph's Hospital, Milwaukee, Wisconsin

2:00 P.M.

Discussion of Dr. Altschuler's Presentation

2:45 P.M.

Intermission to Visit Exhibits

3:00 P.M.

"Jaundice in Sickle Cell Disease"

By: L. W. DIGGS, M.D., Memphis

3:15 P.M.

"The Importance of the Open Staff"

By: HARRY G. BROWNE, M.D., Nashville

3:30 P.M.

"The Kidney and the Blood Pressure, Research"

By: E. E. MUIRHEAD, M.D., Memphis

3:45 P.M.

"Assay of Amniotic Fluid for Rh Antibody in Rhesus Sensitized Gravid Women"

By: RICHARD H. WALKER, M.D. and ARTHUR T. FORT, III, M.D., Memphis

4:00 P.M.

"Thrombopathy, Diagnosis and Management"

By: LARRY J. DAVIS, M.D.,
E. ERIC MUIRHEAD, M.D., (and)
M. EULALIA HARBAUGH, Memphis

4:15 P.M.

"Technical and Clinical Experience with GLC Steroids and Estrogens"

By: DANIEL F. BEALS, M.D., Knoxville

4:30 P.M.

"Sickle Cell Disease Affecting the Kidney"

By: JAMES A. PITCOCK, M.D., Memphis

4:45 P.M.

"Specific Histologic Diagnosis from Cytologic Material"

By: STEPHEN WILSON, M.D., Knoxville

5:00 P.M.

"Endocrine Adenomatosis"

By: ALAN R. LAURAIN, M.D., Johnson City

5:15 P.M.

Business Meeting**Scientific Exhibit**

(East entrance to main lobby)

The Pali; A Program Accelerated Laboratory Investigation

The Role of the Pathologist in the Modern Clinical Laboratory

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**TENNESSEE PEDIATRIC SOCIETY
SATURDAY, APRIL 11, 1970**

Room 202 Sheraton-Peabody Hotel

12:00 Noon

Luncheon and Business Meeting

1:30 P.M.

SCIENTIFIC PROGRAM

The scientific program of the Tennessee Pediatric Society will be combined with the Otolaryngology Section of the Tennessee Academy of Ophthalmology & Otolaryngology, beginning at 1:30 P.M. in Room 213 of the Sheraton-Peabody Hotel.

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**TENNESSEE PEDIATRIC SOCIETY
(and)**

**TENNESSEE ACADEMY OF
OTOLARYNGOLOGY**

SATURDAY, APRIL 11, 1970

COMBINED SCIENTIFIC PROGRAM

Room 213 Sheraton-Peabody Hotel

1:30 P.M.

"Upper Respiratory Tract Infections"

By: DAVID KARZON, M.D., Professor of Pediatrics
Vanderbilt University School of Medicine

2:00 P.M.

"New Trends in Pediatric Otolaryngology"

By: MICHAEL GLASSCOCK, III, M.D., Assistant
Professor of Otolaryngology, Vanderbilt
University School of Medicine

2:30 P.M.

Panel Discussion**"Management of Respiratory Infections in Children"**

Moderator: JERRIE CHERRY, M.D., Professor and
Chief of the Division of Otolaryngology,
Vanderbilt University

Panelists: DAVID KARZON, M.D., Professor of
Pediatrics, Vanderbilt University;
MICHAEL GLASSCOCK, III, M.D., Assistant
Professor of Otolaryngology,
Vanderbilt University; and CHARLES
GROSS, M.D., Professor of Otolaryngology,
University of Tennessee
School of Medicine, Memphis

SOCIAL HOUR

Room 200

Sheraton-Peabody Hotel

6:00 P.M.-8:00 P.M.

(For the Combined Sections of Otolaryngology
and Pediatrics)

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**WOMAN'S AUXILIARY TO THE
TENNESSEE MEDICAL
ASSOCIATION**

SATURDAY, APRIL 11, 1970

Holiday Inn-Rivermont, Memphis

PROGRAM

8:00 A.M.-1:45 P.M.

Registration

Lobby—Holiday Inn Rivermont

8:00 A.M.-9:30 A.M.

Combined Boards Breakfast and Workshop

Presiding: MRS. WILLIAM F. MACKEY

"Important that all retiring officers and incoming officers and committee chairmen be present. Mrs. Chester Young, National Regional Vice-President will be present."

9:45 A.M.-11:45 A.M.

General Business Session

12:00 Noon-1:45 P.M.

ANNUAL LUNCHEON

Honoring Past Presidents and National Officers
Installation of Officers

2:00 P.M.-3:00 P.M.

Pick up articles from Arts and Crafts

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Contact: (1) Mrs. Elizabeth Harkins, ACSW, Coordinator of Admissions
or

(2) Samuel N. Workman, M.D.,
Chief of Clinical Services

(3) Charles W. Neville, Jr., M.D.,
Assistant Professor of Psychiatry and
Medical Director

Area Code 704-254-3201

President's Page



FRANCIS H. COLE

As this is written, the time for introduction of new bills in the Tennessee General Assembly has passed, and an entirely different situation has prevailed from the conditions under which we endured last year. The short session has generated few bills of paramount concern to physicians, and we welcome the opportunity to attempt to adjust to the programs established in 1969, specially the gigantic headache of Medicaid. There is reason to believe that the hours of contact work by Tennessee physicians and by the T.M.A. staff has contributed to mutual understanding and respect between the legislators and doctors, and a continuation of this effort is mandatory in the future.

Meanwhile, from Washington have come unappetizing fragments of the report of the investigation of the Senate Finance Committee into the workings of Medicare and Medicaid. The news media of each state were furnished the information about physicians' activities in that state, and an outbreak of infuriating publicity ensued—"Tennessee Doctors charging more than the going rate." The magical figure of \$25,000 was invoked, with strong implications that gross payments of over that amount of money was presumptive evidence of wrong-doing. The following statement was released to the news-wire services on Monday, February 9, 1970:

"The Tennessee Medical Association welcomes the investigation made by the Senate Finance Committee into the workings of Medicare. The basic defects in this program were identified by physicians at the time of its introduction into the Congress in 1965, and these defects contribute to the present problems. First, the provision of health care to persons over 65 regardless of their state of wealth is an unnecessary drain on public funds, and secondly, Federal Administration of the program has been so costly that actual figures are a closely guarded secret.

Health care costs have been caught in the same rising spiral of inflation that has increased the cost of food, lodging, gasoline, and even the salaries of Senators and Representatives.

The regulations covering benefits, services, and payments under medicare are quite straightforward, and are well understood by elderly patients and by their doctors. If fraud has been perpetrated, then the guilty persons must be sought, identified, tried, and punished. However, the fact that a certain gross payment has been made does not constitute evidence of fraud, but will usually be found to reflect long hours of service to elderly patients who are eligible for this care by reason of the laws enacted in 1965.

The Social Security Administration through its fiscal intermediary insurance companies has the information and the authority to withhold payment on any claim until its authenticity is established, and until the charge for services has been investigated and found to be reasonable.

Physicians of Tennessee resent the implications and innuendoes in recent news releases, but stand ready to assist in the investigation of any alleged impropriety by any members of the Tennessee Medical Association."

More than ever, every physician must keep good records; must give particular attention to the economics of his practice, and be certain that billing is accurate, and must, above all, furnish good care to patients at a reasonable charge. Carelessness in records, over-utilizing, over-charging, by a few individuals will bring irreparable damage to our profession.

Sincerely,

Francis H. Cole M.D.

President

THE JOURNAL

OF THE
TENNESSEE MEDICAL ASSOCIATION

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Devoted to the Interests of the Medical Profession of
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Address papers, discussions and scientific matter to R. H. Kampmeier, M.D., Editor, B-1310, Vanderbilt University Hospital, Nashville, Tennessee 37203

Address organizational matters to Jack E. Ballentine, Executive Dir., 112 Louise Avenue, Nashville, Tenn. 37203.

R. H. KAMPMEIER, M.D., Editor
Vanderbilt University, School of Medicine, Nashville, Tenn.

ADDISON B. SCOVILLE, JR., M.D., Associate Editor
2104 West End Ave., Nashville, Tenn. 37203

COMMITTEE ON SCIENTIFIC WORK AND POST GRADUATE EDUCATION

HARRY A. STONE, M.D., Chairman, Nashville

JAMES T. ROBERTSON, M.D., Nashville

JOHN H. BURKHART, M.D., Knoxville

HARRISON J. SHULL, M.D., Nashville

R. H. KAMPMEIER, M.D., Nashville

MARCH, 1970

EDITORIAL

CONTINUING EDUCATION AT "HOME BASE"

Some recent developments have made it urgent that medical groups which wished to assume responsibility for continuing education take steps promptly to implement their desires.

An editorial¹ on these pages, in December 1968, pointed to the renewal of an old and continuing interest of the AMA in the postgraduate education of the medical practitioner,² and its urgent suggestion that state associations become actively involved in this field. In November of 1968 the AMA held a conference at which representatives of the state associations considered means by which their associations might become involved in activities of continuing education if inactive as of that date. Much of the stimulus to the AMA's active interest no doubt stems from the 1967 Report of the National Commission on Health Manpower³ which contained the words:

"The dual program of continuing education and relicensure is a feasible method for providing the health professional with the new knowledge he needs and, at the same time, giving assurance to the public that a practitioner's knowledge reflects the most advanced results of

medical progress. . . . We therefore recommend that professional societies and state governments should explore the possibility of periodic relicensing of physicians and other health professionals. Relicensure should be granted either upon certification of acceptable performance in continuing education programs or upon the basis of challenge examinations in the practitioner's specialty."

The editorial of December 1968 also informed you that TMA had activated a Committee on Continuing Education in the late summer of that year thereby providing for its participation in the AMA Conference.

In the several meetings of the TMA Committee it developed the philosophy, based on much accumulating information that continuing education to be effective must be *self-education*. It recognized that though undergraduate education, following the Flexner Report of 60 years ago, had moved from the hard seats in the lecture hall to the bedside, postgraduate education had continued in the "horse and buggy" vein of *sitting to be lulled into somnolence by the drone of a lecturer expounding upon an irrelevant topic*. William Osler⁴, who introduced bedside teaching to the North American continent, recognized the inadequacies of such methods and in 1903, in his address "On the Educational Value of the Medical Society" outlined what should be 1970's objectives in continuing education. The TMA Committee believed the Hill-Burton hospitals now for the first time permit the development of *self (bedside) education* in nonurban communities and to outmode "sitting and dozing" postgraduate education. The Committee presented its views to the House of Delegates at the 1969 Annual meeting, which resulted in the following official Resolution:⁵

"RESOLVED, that it is the conviction of the Committee on Continuing Medical Education that continuing self-education is imperative in the promulgation of good medical practice, and be it further

RESOLVED, that this Committee, believing that motivation is basic to self-education, recommends that the Board of Trustees and House of Delegates urge each member of the Tennessee Medical Association to become active in continuing education and self-examination, and be it further

RESOLVED, that in the development of such a program this committee will have as its function to act as a liaison and catalyst to local medical

societies and the medical staffs of community hospitals. The Committee will seek the cooperation of the Regional Medical Programs to assist them in the promotion of the continuing education program."

The TMA Committee recognized realistically and practically certain facts. Though "sitting and dozing" courses can be "thought up" to be presented to medical societies or hospital staffs, whether in large cities or in small towns, they perforce must contain much that is irrelevant at either end of this spectrum. Thus, the Committee recognized that *a self-education program must be custom-built*, dependant upon the size of the group, the representation of specialty disciplines in the group, availability of technologic and other ancillary aides and personnel, and above all the needs of day-by-day practice in a given community. The Committee recognized that its function then must be consulting and advisory to attain *self-education* which is, basically, relevant continuing education, and that setting up "sitting dozing" courses would miss the point.

Therefore dual letters were addressed to (1) the Chief of Staff and (2) to the Hospital Administrator of all Tennessee Hospitals in March 1969 to acquaint them of the Committee's objectives. A follow-up letter went out in August, 1969, to inform these persons of the action of the House of Delegates and to invite requests of the Committee for advice and consultation. (Members of the Committee have met with Committees on Continuing Education of several nonurban hospitals.)

Five months ago each TMA member received from the AMA a brochure describing its "Physicians Recognition Award," and an application for this award to be given in June 1972. Reference to this Award was made on these pages in September 1969⁵ (See reference also on Editorial Page, February 1970⁶). Since the information in regard to the requirements for the AMA Award did not spell out the acceptability of continuing education in the nonteaching (in terms of house-staff teaching) hospital, correspondence developed between the TMA and the AMA Council on Medical Education.

From this correspondence of the past

sixty days it has developed that it may be possible to provide for "credit hours" in a continuing education program in the "home" hospital.

It has been customary for the AMA to list each August in the JAMA hospitals accredited for continuing education. Hours spent in such programs will be given credit toward the new Award. However, it now appears that the AMA will entertain applications for listing in August of programs developed in community hospitals never listed previously. This will permit a preliminary experience in self education in community hospitals for a year or two before requesting the customary accreditation. This is consonant with the quotation your Editor used on these pages last September, taken from JAMA editorials.⁷ These pointed up the essence of continuing education—self education in the home hospital environment which makes for accessibility, motivation, participation and relevance to local needs in continuing education. These editorials underline the basic philosophy of the TMA Committee.

The deadline for preliminary registration with the AMA for projected courses was March 1. A subsequent deadline of May 15, will need to be met in a description of continuing education to be offered by a community hospital for the period of September 30, 1970 to August 31, 1971. The TMA Committee has acquainted all Tennessee hospitals of this new development of potentials in continuing education. (The *Journal's* deadline did not permit publication of this important information in the February issue.) A number of Tennessee's nonteaching hospitals, whether in the larger or in the smaller cities, have the potential, because of geographic location and/or interested staff, of developing programs of self-education closer to "home base" for many members of TMA. The hospitals have been told again that the TMA Committee will be pleased to act in screening programs in continuing education and recommendation for listing in the August issue of the JAMA. Thereby the TMA Committee will be in a position to develop additional responsibilities in the area of continuing education, which will be attaining increasing impor-

tance in the provision of adequate and comprehensive medical care as seen through the eyes of both government and private medicine.

R. H. K.

References

1. Editorial: State Medical Associations—Their Role in Continuing Education, *J. Tennessee M. A.* 61:1224, 1968.
2. Kampmeier, R. H.: Continuing Education—Historical Perspectives, *Bull. Amer. College Physicians*, 10:486, 1969.
3. Report of the National Advisory Commission on Health Manpower, 1:40, 1967. Washington, U. S. Government Printing Office.
4. Osler, William: *Aequanimitas, With other Addresses*. Philadelphia, P. Blakiston's Son & Co., 3rd edition, 1932.
5. Editorial: AMA Recognition Award for Continuing Education, 62:844, 1969.
6. Editorial: Application for AMA Recognition Award, 63:144, 1970.
7. Editorials: Motivation, *JAMA* 209:765, 1969; The State Medical Association and Continuing Education, *ibid* 209:766, 1969.

IN MEMORIAM

Gammon, William M., Bristol. Died January 21, 1970, Age 70. Graduate of University of Virginia, 1930. Member of Sullivan-Johnson County Medical Society.

Hite, J. Harvill, Nashville. Died February 6, 1970, Age 79. Graduate of Eclectic Medical College, Cincinnati, 1914. Member of Nashville Academy of Medicine.

Russell, Alexander Fount, Clarksville. Died January 6, 1970, Age 61. Graduate of University of Tennessee Medical College, 1933. Member of Montgomery County Medical Society.

Shull, Vivion F., St. Francisville, Louisiana. Died December 30, 1969. Graduate of Loma Linda University, 1930. Member of Chattanooga-Hamilton County Medical Society.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Montgomery County Medical Society

Recently installed officers of the Montgomery County Medical Society for 1970 are:

President: Dr. Troy A. Walker
Vice President: Dr. Dawson W. Durrett
Secretary-Treasurer: Dr. A. R. Boyd

Knoxville Academy of Medicine

At its February meeting, the Knoxville Academy of Medicine heard an address by Dr. Tom Littlejohn, State Medical Examiner. Dr. Littlejohn's topic was "The Law and Function of the State Medical Examiner." Also, Dr. W. Gilmer

Reed discussed "A Case Report of Hemachromatosis."

Memphis-Shelby County Medical Society

The MEMPHIS and MID-SOUTH MEDICAL JOURNAL has been discontinued due to a drastic decline in advertising income and the increased cost of publication. The "Journal" has been in existence since 1881, although the actual name of the monthly publication has been changed several times.

As of January 1, the Memphis and Shelby County Medical Society began publishing a monthly newsletter. This is being done in an effort to continue bringing important medical news of the Memphis and Mid-South area to the members of the Medical Society and the Mid-South Medical Association.

Coffee County Medical Society

The following were elected to serve as officers of the Coffee County Medical Society for 1970:

President: Dr. William D. Calhoun
Vice President: Dr. Charles H. Webb
Secretary-Treasurer: Dr. Coulter S. Young

Roane-Anderson County Medical Society

The meeting of the Roane-Anderson County Medical Society was held on February 24 at the Oak Ridge Hospital. Dr. Samuel J. Pieper, Medical Director for the Regional Mental Health Center in Oak Ridge, was the principal speaker for the evening. Dr. Pieper discussed the Regional Mental Health Center's operations.



New Members

The Journal takes the opportunity to welcome these new Tennessee Medical Association Members.

HENRY COUNTY MEDICAL SOCIETY

Frank B. Sleadd, M.D., Paris

NASHVILLE ACADEMY OF MEDICINE

William G. Davis, M.D., Madison
Kenneth J. Kahn, M.D., Nashville
Robert A. Brown, Jr., M.D., Nashville

ROANE-ANDERSON COUNTY MEDICAL SOCIETY

James A. Greene, M.D., Oak Ridge

SHELBY COUNTY MEDICAL SOCIETY

Ronald L. Terhune, M.D., Memphis

OVERTON COUNTY MEDICAL SOCIETY

B. H. Copeland, M.D., Byrdstown

NATIONAL NEWS

The Month In Washington (From Washington Office, AMA)

The Senate Finance Committee approved a staff report on medicare and medicaid which was critical of both physicians and administration of the health care programs. It included a recommendation for fee schedules for physicians' services.

In a joint statement, the presidents of the American Medical Association and the National Medical Association pledged support of their organizations to the committee's efforts to correct deficiencies and abuses in the two programs. However, the two spokesmen for organized medicine said "it would be tragic if . . . regulations were adopted whose effect would be to deny a greatly improved level of health care to the ghettos."

The AMA-NMA statement said that "we were greatly encouraged by the committee's comment that it 'believes that the majority of physicians for whom information was requested with respect to medicare and medicaid as presently structured have dealt fairly with these federal programs and with the federal government.'"

In regard to abuses and fraud, the statement said:

"Where these abuses exist, they must be rooted out. Both the AMA and the NMA are prepared to take very vigorous action within their power to help the committee and the government accomplish this."

It was noted that the committee had denied an AMA request many months ago that it be given the names of physicians involved in the committee's investigation.

"Despite this," the statement said, the AMA and the NMA through their own resources have been able to identify a number of physicians grossing more than \$25,000 in these programs . . .

"In some instances, medical societies had already taken appropriate action against individual physicians where the evidence warranted. In other instances, however, the AMA and the NMA have found that many of the physicians presumably included in

the committee's study are dedicated physicians working in isolation in slum and rural areas who are literally being overwhelmed by a tide of sick humanity . . .

"We therefore believe it would be unfortunate if the committee's report leads the public to believe that medicare and medicaid are riddled with fraud or that the number of physicians abusing the programs is large. Such is not the case . . ."

The report said that incomplete and partial listings indicated 4,300 individual practitioners plus an additional 900 physician groups each received at least \$25,000 from medicare in 1968, including 68 who received \$100,000 or more. The report also included a long list of physicians by state receiving \$25,000 or more from medicaid in 1968. None were named; listings were by code numbers.

"Hundreds of the payments profiles indicate that the physicians involved might be abusing the program," the report said. "For example, we found many general practitioners each paid \$15,000, \$20,000, or more for laboratory services. We found large payments being made for what appear to be inordinate numbers of injections. In many cases we found what is apparently over-visiting and gang-visiting of patients in hospitals and nursing homes.

The staff believes that the majority of physicians on whom information was gathered provided medically necessary services for which they were entitled to charge and be reimbursed. On the other hand, medicare's payments structure did little to discourage—in fact, it encouraged—high fees, and thus may well have contributed to the very substantial payment totals to those same physicians."

Recently, the Social Security Administration reported that about 2,500 cases had been investigated for fraud or abuse during the first three and one-half years of medicare. It was emphasized that this was only a minuscule fraction of total medicare transactions. Social Security Commissioner Robert M. Ball said:

"Medicare pays about 30 million doctors' bills and 12 million bills from institutional providers of services each year. It is clear from our investigations that the number of

attempts at fraud or abuse is relatively very small."

About half of the cases investigated, he said, resulted from clerical errors, misunderstandings or honest mistakes by physicians and health services. To Jan. 20, 1970, the SSA had referred the cases of 13 individuals and organizations to the Justice Department with recommendations for criminal prosecution for fraud. Two physicians have been convicted in U. S. district courts and indictments have been returned against another five physicians and one non-physician. Another five cases had been referred with recommendations that civil proceedings be started for the return of illegally collected funds. Early this year, social security investigators also were preparing an additional 35 possible fraud cases for referral to the Justice Department.

The most common types of alleged violations reported include physicians and providers billing for services not rendered, excessive charges, alteration of bills, duplicate billing, misrepresentation of types of services or dates of services, unreported discounts, or kickbacks, and employee embezzlement, medicare officials said.

The report's recommendations were aimed at providing "bases for remedying the serious, costly, and pervasive problems" of the two programs and make them "work more efficiently and economically." However, it was conceded that physicians constitute the cardinal factor.

"The key to making the present system workable and acceptable is the physician and his medical society," the committee staff said. "We are persuaded that at this point in time neither the government nor its agents have the capacity to effectively audit medical practice to assure that a given physician functions responsibly in dealing with the publicly financed programs.

"While there is growing awareness among many physicians of the need for the profession to effectively police and discipline itself, performance has been spotty and isolated so far. Prompt action is necessary by organized medicine (and other health professions) to do what is required with re-

spect to monitoring care provided and charges made for the care . . .

"However, procedures which involve peer review should not be undertaken without precise spelling out and assurances that such review will be comprehensive and effective—not paper and token."

Report recommendations:

—Fee schedules for physicians' services.

—Generic prescribing of drugs.

—"Curb overutilization by requiring prior professional approval of elective procedures and expensive courses of treatment.

—Require the patient to name a "primary physician" to end "costly 'doctor shopping'."

—Require states to provide medicaid recipients with statements outlining payments made in their behalf.

—Modify present law "to make practicable reasonable cost-sharing payments by the medically indigent."

—Prohibit independent collection and discount agencies from collecting medicaid or medicare due bills that providers have sold to them.

—Improve federal administration, and establish cooperative arrangements with and between states.

—Establish a medicaid fraud and abuse unit in HEW, and require states to establish similar units.

—Combine the medicare and medicaid advisory councils.

* * *

The American Medical Association urged changes in proposed federal regulations concerning fraud under the medicaid program.

"While we do not condone in any way any fraudulent conduct of physicians in Title XIX (medicaid) or in any professional activity, we do believe that physicians will consider the new requirements an unwarranted affront to their integrity in their participation in the program," Dr. Ernest B. Howard, executive vice president of the AMA, said in a letter to John D. Twinn, acting administrator of the medicaid program.

One of the proposed regulations would require physicians to sign form statements certifying that their claims were correct

and that they understood fraud could subject them to prosecution.

These statements, Dr. Howard said, would serve no useful purpose because physicians already know that false claims could lead to prosecution. On the other hand, the regulation would be "regarded as offensive by many physicians since it obviously impugns their integrity," the AMA letter said.

The other proposed regulation would require state agencies to promptly report suspected cases of fraud.

"It is obvious that serious prejudice may result to a physician where the suspicion of fraud is publicized," the AMA said. "Even when the fraud is not later established, irreparable harm to the reputation of the physician will still have resulted. . . . We believe it will be better procedure not to report each suspected case, but to include in the report only those situations where the case has been concluded and fraud has been established."

* * *

The Nixon Administration submitted a fiscal 1971 budget calling for federal expenditures of \$20.6 billion from general revenues for health purposes, an increase of \$1.8 billion over current spending levels. Medicaid and medicare Part B (physicians' services) accounted for much of the increase.

The overall medicare budget, including Part A (hospitalization), increased by \$1.2 billion to \$8.8 billion. Estimated medicaid costs to the federal government rose from \$2.6 billion to \$3.1 billion. However, the Administration hopes to cut the medicaid budget by \$235 million by getting Congress to approve elimination of federal aid for extended care in mental institutions and nursing homes.

The budget for the current 1970 fiscal year, ending next June 30, still had not been approved when the new budget was submitted. Congress upheld President Nixon's veto of the appropriations for the departments of labor and of health, education and welfare on the ground that it was inflationary. The main funds at issue were educational aid for the federally impacted areas. The Administration and Congressional leaders negotiated a compromise.

In the 1971 budget, the lid was kept on health research spending by holding the overall increased in funds requested for the National Institutes of Health to \$48 million. Some of the institutes' programs were cut and others given only small increases. Cancer research was allotted the largest increase, \$28 million, pushing the 1971 budget for the program to \$202.3 million. Heart research and child health research were increased by \$17 million each.

Increases totaling \$15.4 million were asked for alcoholism and drug addiction programs.

The Food and Drug Administration budget was upped by 10 per cent, from \$81.3 million to \$89.5 million. Of this hike, nearly \$2 million would be used to check safety of food additives and \$2.2 billion for research on cancer and birth defects in animals exposed to pesticides.

A boost of \$12.4 million, to \$57.4 million, was requested for health services research and development projects "directed primarily at containing the rate of increase of medical care costs and improving the availability and utilization of health care especially for low income groups." The federal programs in this field include: the development of alternatives to long-term stays in hospitals; experiments with private insurance firms to develop additional policies to encourage out-of-hospital care; experiments with comprehensive prepayment plans; improvement of municipal hospital systems, and development of new types of health service manpower.

An increase of \$25 million, to \$320 million, was requested for health professions education and manpower training programs.

* * *

The pros and cons, with emphasis on the cons, of birth control pills were aired at a Senate subcommittee hearing.

Most of the physician witnesses at four days of hearings by the Senate Antimonopoly Subcommittee testified that not enough attention had been paid to side effects. They urged that both physicians and drug companies be more diligent in calling patients' attention to the possible dangers in taking oral contraceptives.

Some of the witnesses expressed strong

concern or alarm as to side effects. Others defended the oral contraceptives.

Developments related to the hearings included:

—The Food and Drug Administration revived its birth control advisory committee which last fall concluded that the benefits of oral contraceptives outweighed the possible dangers so heavily that they could be evaluated as "safe." Dr. Roy Hertz, New York, N. Y., a critical witness before the subcommittee, was named temporary chairman.

—In advising physicians about the new labeling, the new FDA commissioner, Dr. Charles C. Edwards, urged that patients be given full information about potential adverse effects.

—The American College of Obstetricians and Gynecologists said it "deplored inaccurate or sensational reports concerning the scientific data on these drugs." The pills were termed "accepted therapeutic methods."

—Dr. E. B. Howard, executive vice president of AMA, in a televised interview, urged American women to be calm in the face of the wide publicity about side effects and follow the orders of their physicians.

—The AMA's Council on Drugs said: "Oral contraceptives should continue to be prescribed by physicians for patients who require this type of contraception. However, we urge that patients be advised that there are certain risks involved—the slight risk of vascular damage and the theoretical risk of carcinoma."

MEDICAL NEWS IN TENNESSEE

James Waters Named BCBS President

James M. Waters has been named President of the Blue Cross-Blue Shield of Tennessee. Mr. Waters, formerly Executive Vice President of Blue Cross-Blue Shield, was elected following the death of John R. Hill, who headed the Blue Cross organization since 1945.

Mr. Waters joined Blue Cross-Blue Shield of Tennessee in 1946, only months after the Blue Cross plan began operation. In his 24 years with the organization, he has served

in a variety of management capacities, most recently as Vice President and then as Executive Vice President. He formerly had experience in railroading, manufacturing, and corporate tax accounting.

Blue Cross-Blue Shield of Tennessee now serves over 1.5 million Tennesseans and disperses more than \$120 million annually in health care payments. Operating in 90 of Tennessee's 95 counties, Blue Cross-Blue Shield has offices in Jackson, Nashville, Knoxville and Kingsport in addition to the home office in Chattanooga.

Meharry Medical College

Meharry Medical College officially launched its \$88 million fund drive on January 14th. The five year fund drive anticipates \$33 million from federal funds and \$55 million from private sources.

It is hoped that the program will triple the Meharry enrollment and encourage many youngsters from poor neighborhoods to pursue medical education either at Meharry or elsewhere.

Dr. Lloyd Elam, President of Meharry, stated at a recent luncheon in New York given by the Metropolitan Life Insurance Company that 80% of Meharry graduates are practicing either in urban ghettos or in poor rural areas. He said Meharry graduated 65 doctors last year and is presently accepting 81 applicants in the freshman class.

Also at the luncheon, Dr. Roger O. Egeberg, Assistant Secretary of Health, Education and Welfare, said the Meharry program "could change the whole picture of health care in America. The Meharry graduates are in my judgement among the best trained doctors in the world."



The dedication of the Matthew Walker Health Center occurred on March 7 in the auditorium of Pearl High School, the speaker, Mayor Charles Evers of Fayette, Mississippi.

University of Tennessee Medical Units

Dr. Jack K. Williams has been appointed Chancellor Pro Tem at the University of Tennessee Medical Units until a successor to Dr. Homer Marsh can be appointed. Dr. Williams, who is U.T.'s Academic Vice-

President, has held both academic and administrative positions, first at Clemson University and then as Commissioner of Public Higher Education for the State of Texas.

Dr. Williams will divide his time between Knoxville and Memphis in serving as Chancellor Pro Tem and in continuing to carry on his duties as Academic Vice-President for the statewide University of Tennessee system. He will also continue to serve as Chairman of the Medical Units' Search Committee which is to screen and recommend a permanent successor to Dr. Marsh.

★

The University of Tennessee Pharmacy Department's Drug Abuse Education team will present informative sessions on Drug Abuse at sixty-two junior and senior high schools in the Memphis and Shelby county area. This will be a two week program and will be called "Operation D-Day." Also, Dr. Seldon Feurt, Dean of the Department of Pharmacy, will appear on several radio and TV programs discussing various aspects of drug abuse.

The project has received support and approval from B'Nai Brith, the Memphis Police Department, and the Shelby County Sheriff's Department and it is anticipated that it will reach 75,000 students in the Memphis area.

Vanderbilt University School of Medicine

The Vanderbilt Medical Center Library has been named a member of the Southeastern Regional Medical Library Program, which will extend services to health professionals and institutions in the region. In the beginning, the primary service of the RMP will be interlibrary loans but will eventually expand to include reference service, union lists of serials and books and some training functions. The program, which began January 1, will serve the states of Alabama, Florida, Georgia, Mississippi, South Carolina, Tennessee and also Puerto Rico. The ultimate goal is to speed the flow of biomedical information to practitioners and health science professionals, by supplementing existing services.

★

The Abraham Flexner Lecturer for 1970

is Dr. Franz Gross, chief of the Department of Pharmacology at the University of Heidelberg, Germany, and distinguished for his work in the pharmacology of antihypertensive drugs and the effect of the adrenal cortex and the kidney on hypertension. He will be the lecturer in residence during the period March 19-May 14.

A symposium on the Control of Hypertension will be held on April 30, sponsored jointly by the Middle Tennessee Heart Association and Vanderbilt University School of Medicine. It is being held on Cardiac Day and in connection with the Lectureship. In addition to Dr. Gross, the other participants in the symposium are to be Dr. E. D. Freis, Veterans Administration Hospital, Washington, D.C.; Dr. W. Stanley Peart, F.R.C.P., St. Mary's Hospital, London, England; Dr. Robert Gaunt, Ciba Pharmaceutical Company; Dr. Irvin H. Page, Cleveland Clinic Foundation; Dr. James C. Melby, Boston University; and Drs. Grant Liddle, John Oates, and John Foster of Vanderbilt.

PERSONAL NEWS

Dr. William Stoney, Nashville, was the featured speaker at the 1970 Henry County Heart Fund kickoff dinner on January 31 in Paris, Tennessee.

Drs. Jean M. Hawkes and Douglas Hawkes, Memphis, are serving a two month tour of service aboard the hospital ship *S. S. Hope* in Tunis, Tunisia. The tour began on January 15 for the husband-wife team.

Drs. John F. Connelly, Frank E. Jones, III, and E. Dewey Thomas, all of Nashville, were recently inducted as Fellows of the American Academy of Orthopedic Surgeons.

Dr. Ronald R. DiNella has joined **Drs. William L. Taylor and Harrison H. Shoulders** in the practice of Medicine and Surgery at the Taylor Hospital in Lewisburg.

Dr. Nat T. Winston, Jr., President of the American Psychiatric Hospitals, Inc. and former Commissioner of Mental Health for the State of Tennessee, was guest speaker at the Annual Lewis County Civic Club banquet.

Drs. Fred B. Ownbey and Harry L. Page were co-directors of a symposium conducted at Baptist Hospital in Nashville. The symposium was co-sponsored by Baptist Hospital and the American College of Cardiology and entitled "The Physician and Intensive Coronary Care."

Dr. S. Benjamin Fowler, President of the American Academy of Orthopedic Surgeons, delivered his presidential address at the Society's recent annual meeting in Chicago. Dr. Fowler is from Nashville.

Dr. Amos I. Chernoff, Knoxville, was the main speaker at a seminar at the University of Tennessee—Atomic Energy Commission Agricultural Research Laboratory in Oak Ridge. Dr. Chernoff's topic was "The Memorial Research Center—Its History, Function and Future." He is director of the UT Memorial Research Center in Knoxville and also Professor of Medicine at the UT College of Medicine in Memphis.

Dr. James J. Hamilton, Kingsport, is the new President of the Medical and Dental Staff of the Holston Valley Community Hospital for 1970.

The husband-wife physician team of **Drs. Gordon and Sara Sell** were guest speakers at a special joint lady's night meeting of several civic clubs in Dickson. Dr. Gordon Sell practices cardiology in Nashville and his wife, Sara, is a Professor of Pediatrics at Vanderbilt University Medical School.

Dr. Kathern Ann Gilreath has recently moved her private practice from Knoxville to Sevierville. Dr. Gilreath will continue to practice her specialty of Obstetrics and Gynecology.

Dr. Jack Kinnard, Nashville, has been selected to head the Doctor's Division of the Heart Fund Campaign.

Dr. Charles W. Reavis, Chattanooga, is among four U.S. physicians whose comments on "Colon Preparation for Radiological Study" were featured in a current issue of MODERN MEDICINE. Dr. Reavis is a practicing Radiologist and a staff member of Baroness Erlanger Hospital in Chattanooga.

Dr. Frank M. Rembert has joined Dr. Fred Goldner, Nashville, in the practice of internal medicine, with special interest in hematology.

Dr. John K. Wright has become an associate of Drs. Douglas Riddell and Lansdon Robbins of Nashville, in the practice of surgery.

- April 10-12 American Society of Internal Medicine, Warwick Hotel, Philadelphia
- April 12-17 American College of Physicians, Bellevue-Stratford Hotel, Philadelphia
- April 12-18 American College of Obstetricians and Gynecologists, Americana Hotel, New York City
- April 13-16 American Academy of Pediatrics, Washington Hilton, Washington, D.C.
- April 23 Post-graduate Symposium on Rheumatic Diseases, Rankin Amphitheater, Louisville General Hospital, Louisville, Ky.
- April 27- May 2 American Academy of Neurology, Americana Hotel, Miami Beach
- May 4-5 American Cancer Society's 12th Annual Cancer Seminar, Frontier Hotel, Las Vegas, Nevada
- May 4-5 AMA Congress on Environmental Health, Statler-Hilton Hotel, Washington, D.C.
- May 10-14 American Urological Association, Bellevue-Stratford Hotel, Philadelphia
- May 11-15 American Psychiatric Association, San Francisco
- May 20-23 American Gastroenterological Association, Sheraton-Boston, Boston
- May 24-27 American Thoracic Society, Sheraton, Cleveland
- May 25-27 American Gynecological Society, The Homestead, Hot Springs, Va.
- May 28-30 American Ophthalmological Society, The Homestead, Hot Springs, Va.
- June 15-17 American Neurological Association, Claridge Hotel, Atlantic City, N.J.
- June 21-25 American Medical Association, Annual Meeting, Chicago

AMA Establishes New Department To Strengthen Specialty Ties

The American Medical Association established a new headquarters staff department Jan. 22 to strengthen liaison and services to related medical organizations. It is the Department of Specialty Society Services, reporting directly to Richard S. Wilbur, M.D., assistant executive vice president. Department Director is Theodore R. Chilcoat, Jr., a five-year staff member formerly assigned to the AMA Washington Office.

The Department will serve and implement the directives of the Interspecialty Committee which was created in 1966. On the same date, Jan. 22, Ernest B. Howard, M.D., AMA executive vice president, announced that Doctor Wilbur was appointed secretary of the Committee, succeeding Hugh H. Hussey, M.D., who was appointed director of the AMA Division of Scientific Publications and editor of the *Journal of the American Medical Association* Jan. 1.

Commenting on the new appointments, Doctor Howard said, "The establishment of this special

ANNOUNCEMENTS

Calendar of Meetings 1970

State

- April 9-11 Tennessee Medical Association, Sheraton-Peabody Hotel, Memphis
- April 23 Ninth Annual Medical Symposium of Bristol Memorial Hospital, Holiday Inn, Bristol, Va.-Tenn.
- May 26-29 Mid-South Medical Association, Holiday Inn-Rivermont, Memphis

National

- April 9-10 National Conference on Rural Health, Pfister Hotel, Milwaukee

department is an important step in strengthening AMA's relationship with the specialty societies, and it is the culmination of a long range program undertaken to upgrade the services of the AMA to the specialty societies.

"After the founding of the Interspecialty Committee, the House of Delegates appointed an Ad Hoc Committee to Study the Modus Operandi of the Sections of the House of Delegates. Its report, prepared under the direction of its chairman, William F. Quinn, M.D., a Los Angeles surgeon, called for the creation of a group of section councils to provide specialty societies with direct representation in the AMA House of Delegates. The report was adopted in July, 1969.

Its specific recommendations were to:

- "Establish a mechanism for stimulating increased cooperation between the specialty medical societies and the AMA, thus forging a relationship that will bind specialty societies and the AMA closer together, generating a singleness of purpose which will benefit all of medicine;
- Give more satisfactory representation in the House of Delegates to the specialty organizations;
- Provide for an increase in experience and competent manpower to assist the Council on Scientific Assembly in developing the Association's Annual Convention scientific program;
- Generate stimulating and engaging interdisciplinary and specialty-oriented programs which will command the interest of greater numbers of practicing physicians;
- Provide a direct and continuing liaison between a section and its corresponding specialty societies;
- Permit specialty societies direct access to the House of Delegates through their appointed delegates, and
- Give AMA specialty sections recognized status by identifying them directly with the specialty societies."

The Department's responsibilities, under the direction of Mr. Chilcoat and a staff aide, are to assist Doctor Wilbur in his secretarial services to the AMA Interspecialty Committee, further liaison with specialty groups, and advance the development of the section councils of the House of Delegates.

Washington, D.C. To Host Voluntary Health Conference

The Third National Voluntary Health Conference will be held at the Statler-Hilton Hotel in Washington, D.C., May 7-8, 1970. Sponsored by the AMA's Board of Trustees and Council on Voluntary Health Agencies, the meeting will emphasize "Health Team Relationships: Professional Associations, Governmental Agencies, Voluntary Organizations."

National leaders will explore the roles, responsibilities and relationships among profes-

sional associations, governmental agencies and voluntary organizations in the provision of health care, broadly interpreted to include research, health education and health services.

Information on registration and reservations may be obtained from D. A. Dukelow, M.D., Conference Coordinator, Department of Health Education, AMA, 535 North Dearborn Street, Chicago, Illinois 60610.

Internal Medicine Course to be Presented

The Medical College of Georgia will present a continuing education seminar on "Selected Topics in Internal Medicine" on March 31-April 1, 1970. This course is designed to present the current status of diagnosis and management of a variety of conditions in clinical medicine.

The morning sessions will be lecture presentations held in the Small Auditorium of the Educational Building, and in the afternoon registrants may choose between several simultaneous demonstrations, conferences, and panel discussions. The afternoon session will provide considerable opportunity for personal discussions with our faculty.

For information regarding registration, please write: Division of Continuing Education, Medical College of Georgia, Augusta, Georgia 30902 (phone—724-7111, Ext. 307).

This program is approved for 13 hours credit by the AAGP.

AAP Spring Session Set for Washington, D.C.

The institutionalized child, protection from infection, the pediatrician and hearing problems, infectious mononucleosis and eb virus, and logistics of delivery of child health practice are among the subjects scheduled to be presented during the annual spring session of the American Academy of Pediatrics, April 13-15 in Washington, D.C.

The meeting will also feature more than 90 scientific and technical exhibits, and informative round table discussions on such subjects as the pediatrician, the family and the child in chronic diseases, adolescence, the pediatrician and the legislative process, asthma, and blood disorders.

Special activities planned for the AAP spring session include: a conference on pediatric nursing, Sunday, April 12; an open meeting of the Academy Head Start Medical Consultation Service at 8:00 p.m. Monday, April 13, and a luncheon meeting of the AAP Council on Pediatric Practice, Monday, April 13.

The conference on pediatric nursing will feature four seminar-workshop discussion groups examining such areas as the natural history of a pediatric patient visit; how is the pediatric practitioner role practiced; the responsibility of the nursing profession for preparing the nurse of the future for pediatric patient care, and how is the pediatric nurse clinician's role practiced?

**EIGHTY-FIRST
ANNUAL MEETING
of the
MID-SOUTH
MEDICAL ASSOCIATION**

(Formerly Mid-South Postgraduate Medical Assembly)

MAY 27, 28, 29, 1970

at the

HOLIDAY INN-RIVERMONT

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Outstanding speakers will present half-hour lectures on subjects of interest to both general practitioner and specialist. A well balanced program is scheduled. Make your plans to attend NOW!!

CLASS REUNIONS: Class of 1930; Class of 1935—March, June, September, December; Class of 1939—December; Class of 1940—March, June, September, December; Class of 1945—March, June, September, December; Class of 1950—March, June, September, December; Class of 1955—March, June, September; Class of 1956—June; Class of 1960—March, June, September, December; Class of 1965—March, June, September, December.

MAKE YOUR PLANS NOW TO ATTEND THE

MID-SOUTH MEDICAL ASSOCIATION

MAY 27, 28, 29, 1970

MEMPHIS

TENNESSEE

In addition, a special seminar entitled: "Fundamental Education, a Developmental Model," will be held at the Washington-Hilton Hotel from 10:00 a.m. to 1:00 p.m. on Sunday, April 12. This session will be co-sponsored by the AAP, the Baltimore-District of Columbia Psychoanalytic Institute, and the 100th Anniversary Committee of the Children's Hospital of the District of Columbia. Children's Hospital of D.C. will celebrate its centennial anniversary, April 10-11.

The Academy, headquartered in Evanston, Illinois, is the Pan-American association of physicians certified in the care of infants, children, and adolescents. It has more than 11,000 members in the U.S., Canada, and Latin America.

ACP Postgraduate Courses Announced

The American College of Physicians announces the following courses:

Title: "Current Concepts in Physiology of the Gastrointestinal, Endocrine and Respiratory Systems"

Date: April 9-11, 1970

Meeting Place: Holiday Inn, City Line Avenue and Monument Road, Philadelphia, Pennsylvania

*

Title: "Rheumatic Diseases: Pathogenesis, Diagnosis and Treatment"

Date: March 30—April 3, 1970

Meeting Place: Towsley Center for Continuing Medical Education, The University of Michigan Medical Center, Ann Arbor, Michigan.

Please send all requests for information and application to: Edward C. Rosenow, Jr., M.D., Executive Director, American College of Physicians, 4200 Pine Street, Philadelphia, Pennsylvania 19104.

University of Kentucky Continuing Education Courses

The following courses will be held at the Albert B. Chandler Medical Center in Lexington:

1. A symposium on Gastrointestinal disease entitled "Bring Your Own Lesion." May 8-9, 1970. Guest lecturers: Dr. Robert Zollinger, Professor and Chairman, Department of Surgery, Ohio State University and Dr. Steven L. Wangenstein, Associate Professor, Department of Surgery, University of Virginia. Fee: \$40.00.

2. "Ill Winds," a course on current progress and respiratory therapy. April 17-18, 1970. Fee: \$25.00.

For further information contact Frank R. Lemon, M.D., Associate Dean, Continuing Education, College of Medicine, University of Kentucky, Lexington, Ky. 40506.

* * *

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THE VIEWING BOX

Activism In Continuing Education**F. Douglas Scutchfield, M.D.*****Introduction**

Continuing education is usually considered a passive process on the part of a recipient. That is the individual to be educated sits benignly while the visiting circuit rider lectures, or fidgets in his seat at a postgraduate conference or national meeting while the same lecturer drones on. Both purveyor and recipient of this method of continuing education are aware of and criticize its faults.^{1,2,3}

It is necessary for us to begin to perceive continuing education as a dynamic, active thing on the part of the learner. That is, the individual who wishes to learn must be active in the educational process. The corollary of this is that by making learning an active process on the part of the learner, entices the individual who is disinterested in continuing education. An active educational process becomes more interesting to the individual who is reluctant to become involved in continuing education.

How do we make continuing education an active process? It, like other activities, involves three steps; (1) planning, (2) implementation, and (3) evaluation.

Planning

The prospective student should be involved in decision-making about his own course of study. This concept has been given some lip service in that students are frequently "polled" about the content of the educational efforts aimed at them, the topics covered by the circuit riding lecturer, or the topics of video tapes they will watch. But, what is more important is to provide the student with data for objective decision-making.

Generally this objective analysis is based on "quality of care". There are many ways to measure quality of care including care

reviews, certification, random chart review and medical audit procedures.⁴

The student must develop criteria for what he considers "good" care. It is important to emphasize that this definition of "good" is unique to the learner and cannot or should not be dictated by external sources. By providing the prospective student with information to allow him to decide where he is most short in attaining his own goals, he must make decisions about the content and character of his education, making him an active participant in establishing his educational needs.

Implementation

The traditional methods of continuing education such as the circuit riding professor and the university postgraduate course do not provide activism on the part of the student. We must begin to investigate new methods of education which encourage an active role on the part of the student.

How can the student be actively involved in his own educational efforts? Several methods have proven useful, and perhaps a brief description of these would be in order. The classic ways of involving the student consist of case presentations and discussions at staff meetings. The use of a staff meeting for a discussion of a specific topic by a member of the hospital staff may not be an ideal way to reach the staff, but the individual responsible for the presentation will be actively involved in his own education. The physician-student who has the stimulus of teaching interns, residents, and medical students frequently will learn more about what he is teaching than the students. In hospitals without house staff or students this same method can be used when physicians are called upon to teach nurses and nurses to teach aides. Other methods of active learning are attempts, such as this journal, to encourage the practicing physician to write scientific articles. The importance of many of these is not necessarily the information they convey but the information the

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author obtains while preparing them.

This is the concept of student activism in implementing his own educational goals.

Evaluation

The process of evaluation of educational efforts is closely tied to the concept of planning. Just as information is needed to provide data for decision-making about educational needs, it is also important to provide data to evaluate the impact of educational efforts on those needs. This is usually provided, as in planning, through quality of care analysis. The purpose of this evaluation is to demonstrate the ability of an educational effort to make an impact on the student's performance.

Once again it is imperative that the student take an active role in the evaluation of the educational efforts in which he played a part. By affirming the extent to which an educational experience has affected the quality of care, it provides a reinforcement of the desired activity. In addition, there is an impetus toward more educational goal development as the effect of the previous planning/implementation cycle is impressed on the student.

Conclusion

In summary, the student, for his own continuing education, must be an active participant. He must be active in planning, implementing, and evaluating the education efforts revolving around him. The passive role adapted by many sources of postgraduate education will no longer suffice as the primary method of changing professional behavior.

The student must have objective information available to make decisions about how well he meets his unique criteria for provision of "good" quality of care. He must actively participate in the educational efforts to improve his quality of care, and he must have available objective data on whether he has improved his quality of care following an educational effort.

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(From *Appalachia Medicine*—December, 1969)

Medical Practice in Rural Communities

A Summary

The AMA Council on Rural Health surveyed a random sample of 2,468 physicians practicing in non-metropolitan areas of the U.S. in 1967 with a questionnaire entitled, "Medical Practice in Small and Large Communities." The questionnaire contained 71 completion or multiple-choice items divided into three categories: 1) background material; 2) medical practice organizations; and 3) factors associated with practice and community. Major findings were:

- 1) Over one-third of the physicians reported that their fathers were professional men, with 12 to 16% following their father as a physician.
- 2) Nearly one-half (49%) of the physicians who were practicing in towns under 2,500 were reared in a similar sized town, while the same percentage held true for physicians practicing in non-metropolitan cities of 25,000 or more. The results would seem to indicate that the best chance of securing physicians for the smaller-sized communities is to have more young men with such a background enter the study of medicine.
- 3) It was quite evident that the physicians practicing in non-metropolitan areas were *not* mobile in movement from their original career selections. At least 63% of the physicians had not moved from their original place of practice.
- 4) Factors which influenced them in the selection of a location were: a) best opening when ready to practice; b) geographical preference; c) family and friends; and d) internship and residency period.
- 5) In regard to finding the location to practice, the home-town preference or suggestion of friends were most often listed, followed by place of internship nearby as well as assistance of state and AMA physician placement services.
- 6) It is of interest to note that approximately 60% of the physicians said they were not practicing in the same state in which they graduated from medical school.
- 7) Among the respondents, 58% were engaged in solo or individual practice, 17%

in group medical practice, 9% in a full-time salary arrangement, 8% in other combinations of group or partnership arrangements, and 8% in combinations of salary, group, or individual practice.

- 8) Most rural physicians, in addition to having hospital staff appointments, also had working relations with other physicians.
- 9) Limited accessibility to continuing medical education programs and lack of opportunities for professional growth were of concern to physicians in the sample, and in particular, to those practicing in the isolated rural counties.
- 10) Physicians also viewed hours of practice, medical facilities and personnel available, and emergency medical facilities as problems of concern.
- 11) The commitment of physicians to their profession was demonstrated by the fact that 84% of the respondents indicated that they were active participants in their local medical society.
- 12) Those physicians who liked rural practice and living did so because of the feeling that rural people were friendly and dependable which resulted in close, personal ties with the people; because they liked to be near the open country for recreation; because there was less traffic and confusion and a slower pace; and because their relations with their patients were pleasant.
- 13) Those physicians who expressed dissatisfaction with their present location did so because of community limitations such as lack of social and cultural activities; shortage of physicians and other health personnel; lack of educational facilities; and inadequate living conditions.
- 14) On the whole, physicians in rural America seem pretty well satisfied. They have a hard but good job, and a position of respect in the community.

AMA Surveys

Physicians engaged in the group practice of medicine comprised 10.9% of all doctors involved in patient-care activities in 1965, according to a recent statistical study made by the AMA's Department of Survey Research.

"Group medical practice," as defined by the AMA Council on Medical Service, "is

the application of medical services by three or more *full-time* physicians formally organized to provide medical care, consultation, diagnosis, and treatment through the joint use of equipment and personnel, and with the income from medical practice distributed in accordance with new methods previously determined by members of the group."

The survey views the group practice of medicine as "a significant force in the health care system."

Of the 4,289 medical groups responding to the AMA survey, 2,161 (50.4%) were single-specialty groups; 651 (15.2%), general practice groups, and 1,477 (34.4%), multi-specialty groups.

The group physician complement numbered 28,381, of whom 25,452 were on a full-time basis.

Group Practice

The survey reported 88 groups utilizing a prepayment mechanism as part of, or all of, the group activity. "Most of the prepaid groups (88.6%) were multi-specialty groups, and almost all of the physicians in prepaid groups (98.5%) were in multi-specialty groups," according to the survey.

Physicians affiliated with prepaid group practices numbered 3,491, 71.1% of whom were in the general specialties.

"Of the 31 (35.2%) prepaid groups which reported an affiliation, nine were associated with hospitals, only one with a medical school, and six were associated with a labor union, employee association, or consumer cooperative. The remaining 15 prepaid groups reported affiliation with 'other' organizations. No prepaid group reported an affiliation with industry."

Three of the 29 states, where prepaid group practices were found, contained 44.3% of the prepaid groups, and 71.7% of the physicians. The three states were California, Minnesota, and New York. (*From the Maryland State Medical Journal—May 1969*)

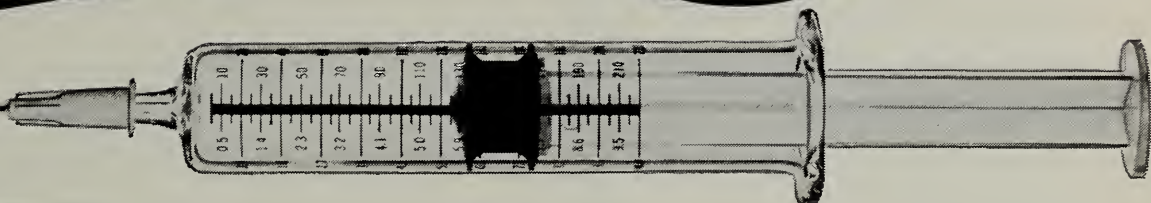


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Manuscripts must be typewritten on one side of letter-weight paper. Either double or triple spacing and wide margins must be provided to facilitate editing which will be legible for the printer.

Bibliographic references should not exceed twenty in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to the style used in the American Medical Association publications, as,—Alais, F. G.: What Is Known About it, J. Tennessee M. A., 35:132, 1950.

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Shortages in medical manpower face the nation, a fact of which all are aware. This analysis of Tennessee's problem in this respect should be of interest to all readers, though where the solution lies is the unanswerable.

The Crisis in Physician Distribution in Tennessee*

CHARLES C. TRABUE, IV, M.D. and RICHARD SACKS, Nashville, Tenn.

Those of us who have practiced medicine in Tennessee in recent years do not need any further proof that there are not enough physicians to meet the demands and needs of our times. The senior author during the past year has visited many physicians in their offices and has been impressed, and alarmed, at the dimensions of the manpower shortage. A true crisis exists in many areas. This physician shortage is given top priority of the problems in the delivery of health care. We have often been told, "Find us some more doctors for this county and then we can consider our other problems." In order to examine the existing distribution of physicians more accurately, this study was undertaken in the summer of 1969 to document the location of physicians in Tennessee by planning areas and by counties in each decade since 1930. (For the sake of brevity in this publication the county data are omitted.)

Two principal sources of information were used. First, the Directory of the AMA which gives the name and age of all physicians by town and county. The second source used was the Directory of Doctors of Medicine registered in Tennessee published annually by the State Licensing Board for the Healing Arts. This latter Directory lists, in addition to the doctor's location, his preference for type of practice. This information was

used to compile the G. P. vs. Specialist information. In one of the eight areas of the state, a comparative tabulation was made using the Directory of Medical Specialists. It was found that 58% of those practicing a specialty were board certified. There is no directory to indicate how many of the remaining 42% are board qualified or are practicing a specialty, because there are no doctors in their area who are better qualified for this specialty practice. Thus the data published in this paper would not conform at all closely with the type of survey which would classify as specialists only those qualified by currently accepted standards of specialization or by specialty board certification. Neither does our classification indicate membership in an Academy of General Practice.

The physicians included in these data are all of those licensed to practice in the state of Tennessee with the exception of interns and residents, who were excluded. On the other hand, it is certain that many physicians are included who because of retirement, teaching and research duties, administrative occupations, etc., are not directly involved in the delivery of health care. It is thought that the majority of these are located in the medical schools and, thus, that the areas significantly affected are Memphis and Nashville. It is also believed that in a study seeking to locate the physicians involved in the delivery of health care the two groups offset each other to some extent.

Tabulations have been made for each county and each planning area as well as for the state as a whole. This division into

*From the Tennessee Mid-South Regional Medical Program, Nashville, Tenn. (Mr. Sacks is a student, Meharry Medical College.)

Support for this paper was rendered by the United States Public Health Service. The findings and conclusions do not necessarily represent the views of the Service.

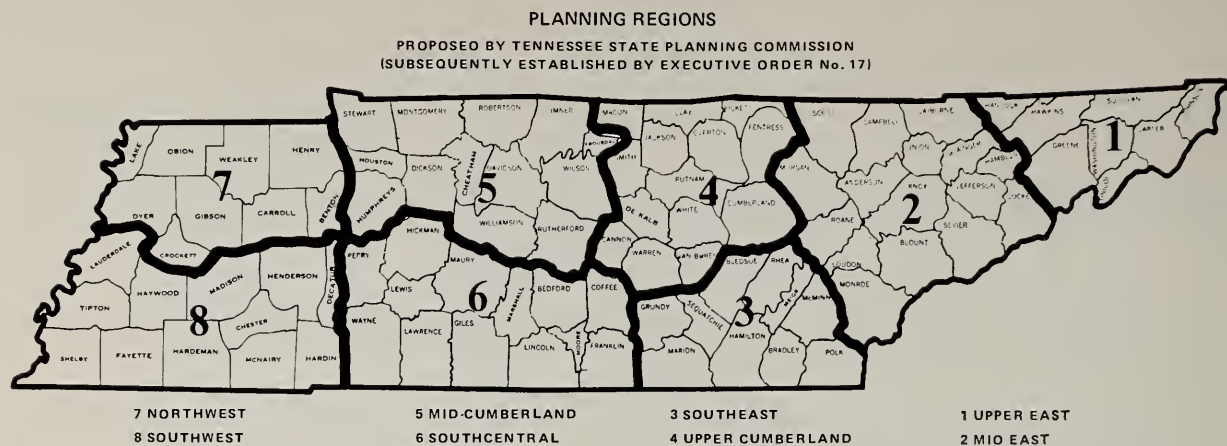


Fig. 1

areas is shown in figure 1. It is recognized, however, that each of these planning areas represents a group of counties which vary greatly from each other in their size, geography, density of population, existing health facilities, economic development, and per capita income. Furthermore, neither county lines nor area boundaries restrict residents in their search for the doctor of their choice.

The population of the state as a whole has grown quite steadily, amounting to a 47% increase from 1930 to 1968. The population of each of the 8 areas is illustrated by decades in figure 2. The population change of the areas has varied greatly, ranging from a 5% loss in the Northwest to a 73% increase in the Southwest during this period of almost four decades.

The number of physicians licensed to practice in Tennessee in 1930 was 2,693 and in 1968, the number was 3,553. This represents an increase of 31.2% in comparison with the state-wide increase of population of 47% during this same period. It is quite obvious that the rate of increase in physicians has not kept pace with the rate of increase in the population. If figure 3 is studied in conjunction with figure 2, it is seen that with a few exceptions there has been a definite correlation between the increased physician population and the increased general population in the different areas.

Figure 4 illustrates graphically the most important data brought out in this survey. The chart illustrates the ratio between physicians and population as measured by the number of physicians per 100,000 population in each of the areas and in the state as a whole. The distance between each vertical

line represents the passage of a decade, starting with 1930 on the left of each figure and ending with 1968 on the right. For the

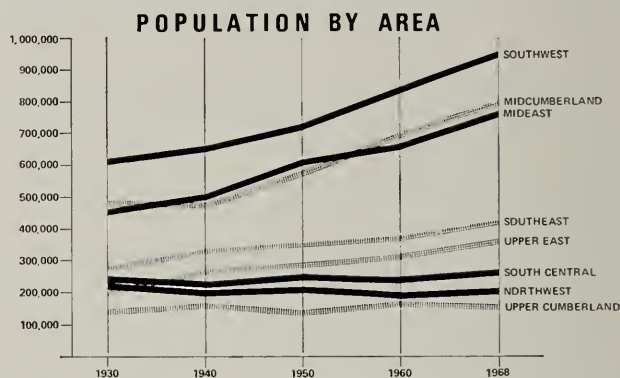


Fig. 2

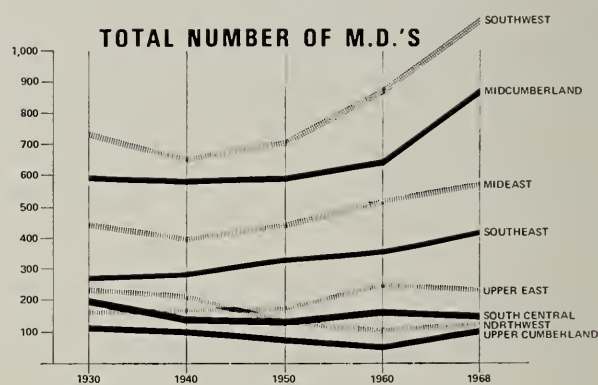


Fig. 3

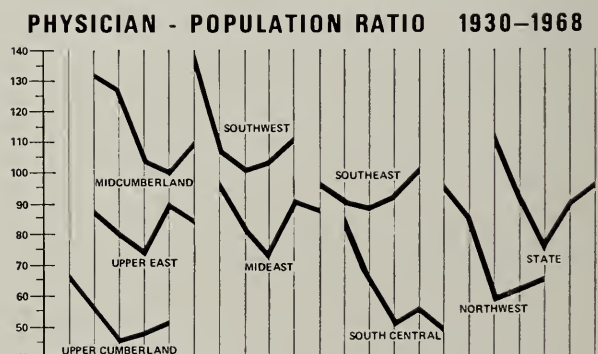


Fig. 4

state as a whole, the ratio of licensed physicians per 100,000 population fell from 102.6 in 1930 to 91.9 in 1968. It will be observed that in all areas the ratio was relatively high in 1930, but by 1940 it had fallen precipitously, and to an even lower ratio by 1950. This decline in the ratio was due principally to an increasing population and a decreasing number of available physicians, presumably because so many of the latter were serving in the Armed Forces. By 1950 the ratio had reached its low point in every area except the Mid-Cumberland where the lowest point was reached in 1960. Between 1940 and 1950, the number of physicians in the state increased 3%, but the population increased 13%. In the decade preceding 1960, the number of physicians increased 17% and the population increased only 7%. Thus the ratio of physicians to population showed a marked improvement in 1960 in the majority of areas. By 1968 the state population has increased 9%, but the number of physicians had increased 15%, resulting in a still further improvement in the physician to population ratio, except that the Upper East, Mid East and South Central areas were an exception and showed a declining ratio. In the Upper East and South Central areas, there was a slightly decreased number of physicians with a rising population and in the Mid East area, the population growth outstripped the increase in physicians.

The highest ratio of physicians to population exists in the areas which include the larger cities, and in the case of the Southwest and Mid-Cumberland areas also contain the medical schools. The ratio of physicians per 100,000 population in the cities is as follows: Memphis, 160; Nashville, 141; Chattanooga, 242; Knoxville, 187. These ratios are not only considerably higher than the ratios for the respective areas in which the cities are found, but are out of all proportion to the largely rural areas which have the following ratios: Upper Cumberland, 48; South Central, 53; Northwest, 64; and Upper East, 82. This disparity of the physician-population ratio between the urban and the rural areas is by no means a true index of the division of patient load among all the physicians of Tennessee.

Many factors are involved and probably the most significant is the fact that 85% of the total specialists who practice in the state are in the 4 major cities. The number of patients who are referred from the rural areas to see specialists in these 4 major cities is not known, but is undoubtedly very considerable. Another significant factor is the large number of physicians included in this survey who are not involved in direct patient care and who are concentrated in the major cities. On the other hand, direct inquiry in several rural counties has revealed a surprisingly large number of physicians who are retired from practice but are still included in both the State Directory and the AMA directory. Thus we recognize that the figures presented in this paper represent an approximation rather than an accurate head count of those involved in patient care.

It is safe to assume that the increased number of physicians in practice is due largely to the increased output of the medical schools. In the decade preceding 1960, the medical schools of the United States graduated 96% more students than they did in the decade preceding 1930. In Tennessee, although there were no new medical schools, the number of graduates increased 124% in this same period, with the University of Tennessee recording the greatest increase.

It is difficult to relate our figures to other published figures because of a difference in basis of calculations. In a pamphlet entitled, "Distribution of Physicians, Hospitals and Hospital Beds in the United States as of January, 1966," the ratio of physicians per 100,000 population for the United States was 138 and for Tennessee was 114 as compared to 91.9 in our tabulation. These figures are based on calculations including all physicians, whereas our figures include only those physicians licensed to practice with interns and residents excluded. However, they strongly indicate that the physician to population ratio in Tennessee is considerably below the national average. It is not surprising that we hear complaints of overwork from so many of our areas.

In studying the distribution of physicians throughout the state decades, it soon be-

came obvious that many towns which had one or more physicians in 1930 now do not have any physicians. A tabulation revealed 488 towns with physicians in 1930 and only 210 with one or more physicians in 1968. The smaller the town the less likely it is to have a physician and for the most part, there are few towns of less than a 1,000 population which have the support of a physician in 1968. This is not surprising when we realize that statewide there are 1,088 people for each physician licensed to practice.

The decline in the number of general practitioners in the state has been recognized by all. Our tabulations show that there was 1,940 general practitioners in 1930 and in 1968 only 1,091. In 1930, the general

practitioners comprised 72% of the total physicians and in 1968, 31%. The decline of general practitioners in the 4 largest cities has been even more dramatic and in 1968, they comprised only 15% of total physicians in those cities. The percentage decline has not been in a straight line but has been more acute in the past 8 years than in either of the two preceding decades. One wonders where this declining trend will stop, or reverse itself, unless means are employed to make the practice and the life pattern of the generalist more attractive to young graduates.

Note. A sheaf of tables showing data by counties available on request from senior author.

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The author from his studies of clinical material in two areas arrives at the conclusion that cancer in nodular goiters is quite rare, of an incidence of 1 to 2 per cent in glands unsuspected of containing a malignant disease. In suspicious glands the incidence is higher. In the two studies the author found the accuracy of clinical diagnosis to be 50 to 80 per cent. The author concludes that these facts should determine the surgeon's choice of management.

Cancer of the Thyroid in Nontoxic Goiters

JAMES E. HAMPTON, M.D., Clarksville, Tenn.

Introduction

Nontoxic goiter is a common problem in our population today. It is alarming mainly in its relationship to thyroid cancer, and much thyroid surgery today is done primarily out of fear of the cancer problem. Crile¹ has stated that he can clinically and accurately recognize 80% of all thyroid cancers preoperatively, but many other physicians doubt that this can be done with true accuracy.

In 1960 I prepared a questionnaire to survey the thinking on the methods of treatment concerning thyroid disease in Memphis, at the University of Tennessee Medical Units. Nine clinical problems regarding thyroid management were presented to 9 surgeons at the medical center. They were asked how they would manage a woman who had been examined by an internist and a surgeon, both agreeing that she was a "good risk" and could pay without hardship for whichever treatment they thought safest and best. One case concerned a woman who had a nontoxic, multinodular goiter one and a half to twice normal size, which was acceptable cosmetically without compression and which was discovered on a

routine physical examination unaccompanied by lymphadenopathy. There was almost an equal division among the surgical group as to whether the patient should be treated surgically or nonsurgically initially. In a similar patient with a solitary thyroid nodule most of the surgeons preferred initial surgery. When these same clinical problems were presented to a group of 14 internists at the medical center, none suggested surgical treatment as the initial management.

In 1968, I presented an identical questionnaire to 3 internists and 3 surgeons at our small community hospital (200 beds) in Clarksville, Tennessee; the 3 surgeons preferred operation as the initial management of the above clinical problems, and the internists preferred nonsurgical treatment. From these two small surveys it would appear that surgeons generally are more apt to use surgical treatment in nontoxic goiter (both in single and multiple nodules). The real problem, of course, lies in finding the true incidence of cancer in a nontoxic goiter and to this problem I shall address myself.

There are many theories today regarding the development of nontoxic goiter; figure 1

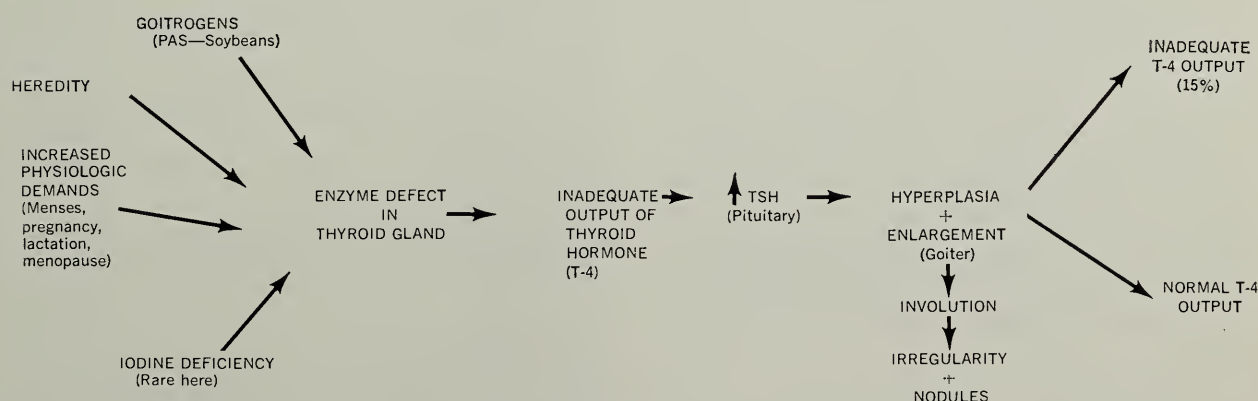


Fig. 1

summarizes much of the current theory in this regard:

In a nontoxic goiter, the thyroid hormone (T-4) output may be inadequate in approximately 15% of the patients and normal in the remainder. I have chosen nontoxic goiter as the subject of this paper because several investigators have thought the incidence of thyroid cancer in toxic nodular goiters is extremely small and thus is not nearly the clinical problem that nontoxic goiters present². Many surgeons have emphasized the significance of solitary nodules versus multi-nodular goiters in relationship to cancer. Mortenson and associates³, at the Mayo Clinic, studied 1,000 consecutive autopsies over a period of 2 years. (Because the thyroid glands were thought to be abnormal clinically before death, 179 autopsies were not included in the study.) Of the 821 cases of clinically normal thyroid glands at the time of autopsy, solitary nodules were found by palpation in only 8.6%, and multiple nodules by palpation in only 12.3%. After these glands were sectioned, the macroscopic findings showed 12.2% to contain single nodules and 37.3% multiple nodules, or 49.5% of the macroscopic sections showed nodules. Depending on how one regards the accuracy of diagnosis here, the chance of separating solitary nodules from multiple nodules—even with thyroid glands in hand—is only 23 to 33% accurate, and it should be noted that in this study one-third of the nodules were over 2 cm. in size. Vander and associates⁴ recently made a final report on their 15-year study of the incidence of thyroid malignancy. At the onset of the study, a distinction was made between glands with single and multiple nodules. However, after the 15 years, no distinction was made between single and multiple nodules in the report because the research team thought the accuracy with which such a differentiation could be made in the smaller lesions was not sufficient to justify separate divisions. With these points in mind, this study concerns nontoxic goiters with no differentiation being made between single and multiple nodules.

The incidence of nontoxic goiter in the population is rather high. Vander and col-

laborators⁴, in 1968, reported a prospective study of 5,000 patients between the ages of 25 and 59 in Framingham, Massachusetts, in a large public health survey conducted over a 15 year period. They found the total incidence of nodular goiter to be 4.2% in this nongoitrous area. The incidence of new thyroid nodules developing during the 15 year period in these persons initially free of thyroid disease was 1.3%. In 1932, Rice⁵, in Minnesota (which is a goitrous area) reported the incidence of solitary nodules on a postmortem study of 26.7%. In areas where goiter is endemic, as many as one-third to one-half of all adults have thyroid nodules 0.5 cm. or greater in diameter⁶. Schlesinger, Gargill and Saxe⁷ state that nodular goiter is found in 5.5% of a nongoitrous population. It has been estimated that clinically recognizable nodules may be found in 10% of the population of the United States.⁸ Sokal⁹ suggests an incidence of 5.5% nontoxic nodular goiter in a standard population in a nongoitrous community. While there is some agreement as to the frequency of nodular goiter, there is considerable variation of opinion as to the incidence of cancer in nodular goiter.

The signs of thyroid cancer are listed in standard textbooks of medicine and include:⁹

(1) Invasion of the capsule. This invasion may cause fixation and a loss of outline of at least part of the nodule.

(2) Hardness of the nodule. Under 40 years of age, the thyroid cancer is hard in approximately 19%; and over 40 years of age, the thyroid carcinoma is hard in 44% of patients. Therefore, 56% of all thyroid cancer is not hard and in fact may even feel cystic.

(3) A change in the rate of growth of the nodule.

(4) A Delphian node.

(5) Metastasis, usually to the vocal chords, chest or bones.

(6) Infrequency of cancer in toxic nodular goiters and in "hot" nodules.

(Nodules may be due to involution, localized thyroiditis, cysts and/or hemorrhage, as well as new growth—including adenomas and carcinomas.)

Sokal⁹ has attempted to clarify the rather confusing statistics on thyroid cancer in nontoxic goiter. He points to the fact that

the high incidence of cancer in operative goiters is in part due to careful screening of patients by the general practitioner, internist, or others, before they are referred for operation, thereby eliminating great numbers of benign goiters from the statistics. Another factor confusing the statistics is that most areas include every thyroid cancer—many of which could be diagnosed by the laity. The burning question that the general, nonsurgical physician desires to know is "What is the true incidence of cancer in a nontoxic, nodular goiter, seen in private office practice that is not suspicious of thyroid cancer?" The following survey was undertaken to further clarify this question which may be considered in two important parts: (1) the accuracy of clinical diagnosis of thyroid cancer, and (2) the

incidence of cancer in a nontoxic, nodular goiter that clinically is not suggestive of thyroid cancer.

Clinical Material

The patient records of the City of Memphis hospitals for a 10 year period (December 1949-December 1959) were surveyed. The total of thyroid operations in this 10 year period done on nontoxic goiters was 333. In this same 10 year period, 20 instances of thyroid cancer were discovered. A careful review of the preoperative records, in a search for definite signs of thyroid cancer, reveals that 16 (80%) of the glands were suspected clinically and usually strongly suspected of being cancerous. A summary of these 20 cases and the signs of cancer found in the 16 cases appears in table 1.

Table 1

CASE REPORTS OF THYROID CANCER. (City of Memphis Hospitals)

GROUP I—Not Suspicious Clinically

CHART NO.	AGE	RACE	SEX	THYROID EXAMINATION	SUGGESTIVE OF CANCER	PATHOLOGIC DIAGNOSIS
53,736	62	C	M	Supraclavicular fat pad biopsy for unresolved pneumonia	No	Follicular adenocarcinoma
106,445	45	C	F	6-7 soft, movable area in isthmus	No; thought to be colloid goiter	Fetal adenoma with morphologic carcinoma
147,383	71	C	F	Firm 7x5x3 cm. mass, left lobe	No	Papillary carcinoma
215,313	46	C	F	3x3 cm. rubbery nodule	No	Follicular adenocarcinoma

GROUP II—Clinically Suspicious

15,125	57	C	F	Firm, diffuse goiter, retro-sternal extension	Fixed to deep tissues	Papillary adenocarcinoma; diffuse colloid goiter
102,445	76	W	M	Firm, slightly enlarged	Metastases to lung, cervical lymph nodes	Anaplastic carcinoma
143,316	51	C	F	Markedly enlarged multinodular (228 gm.)	Hard nodule	Adenocarcinoma
145,269	75	C	F	multinodular, 195 gm.	Hard nodule	Solid cell carcinoma

Table 1 (Cont.)

CHART NO.	AGE	RACE	SEX	THYROID EXAMINATION	SUGGESTIVE OF CANCER	PATHOLOGIC DIAGNOSIS
164,017	79	C	F	4x4x2.5 cm. goiter	Stony hard goiter with metastasis in neck lymph nodes	Carcinoma
186,231	30	C	F	3x3.5 cm. nodule	Lung metastasis	Papillary and mixed follicular adenocarcinoma
186,265	27	C	M	Multinodular goiter	4x3 cm. hard mass, left lobe	Polymorphous carcinoma
186,997	63	W	M	Left lobe, firm, hard, fixed	2x2 cm. metastatic node, rt. neck	Metastatic papillary adenocarcinoma
201,361	28	C	F	Firm nodular goiter	Diagnosis of thyroid carcinoma 1½ yrs. before operation	Metastatic papillary adenocarcinoma
227,402	67	C	F	Normal gland	Lung metastases; 0.5 cm. palpable lymph nodes	Glandular cell carcinoma
229,559	65	C	F	3x4 solitary* nodule, rt. lobe	Quite hard nodule	Carcinoma in mixed adenoma, in left lobe
257,066	54	C	F	Huge mass, left neck	Diagnosis, thyroid carcinoma 1 yr. before operation	Undifferentiated carcinoma
264,223	64	C	F	Normal gland	Rapidly enlarging metastasis, left neck; fixed to surrounding tissues	Anaplastic carcinoma
279,379	70	C	F	7x9 cm. mass ½ cystic—½ solid, in left anterior neck	One part of mass, woody hard	Papillary cyst & adenocarcinoma
300,346	New-born	C	F	5x5x4 cm. mid-line neck mass causing airway obstruction	Child died day of birth; autopsy	Teratoma
304,976	80	C	M	400 gm. gland; 5x6 cm. enlargement, rt. neck.	Hoarse 2 weeks from metastasis to laryngeal nerve	Hurthle cell adenocarcinoma

* The nodule on the right was suspicious for cancer, but the pathologic section showed a calcified mixed adenoma, at operation a 1 cm. nodule was found carcinomatous.

By using the above statistics of 20 instances of thyroid cancer found in 333 operations for nontoxic goiter over a 10 year period, one finds an incidence of cancer in nontoxic goiters (whether nodular or diffuse) of 6%. If one, however, selects only the 4 cases which were not clinically suspicious of thyroid cancer, one finds that the incidence is only 1.2%. To say this in an-

other way, 1.2% of all nontoxic goiters from this hospital in a 10 year period were not suspected clinically of being carcinomatous.

In 1968, a similar study at the Memorial Hospital, Clarksville, over a 15 year period (April 1954-April 1969), revealed 8 patients who had thyroid carcinoma. These case reports follow in table 2:

Table 2
CASE REPORTS OF THYROID CANCER.
 (Clarksville Memorial Hospital)

GROUP I—Not Suspicious Clinically

CHART NO.	AGE	RACE	SEX	THYROID EXAMINATION	SUGGESTIVE OF CANCER	PATHOLOGIC DIAGNOSIS
93,632	52	W	F	2 cm. nodule	No	Mixed papillary & alveolar carcinoma
84,745	34	W	F	Firm cystic 2 cm. nodule	No	Papillary adenocarcinoma
13,805	31	W	F	4 cm. nodule	No	Hurthle cell adenoma; probable early malignancy
7,715	36	W	F	Firm, smooth, 1.5 cm. nodule in one lobe; & 0.75 cm. nodule in other lobe	No	Papillary adenocarcinoma

GROUP II—Clinically Suspicious

68,289	41	W	F	2.5x3 cm. firm nodule	Increasing in size 10 months	Papillary carcinoma
60,012	25	W	F	2 cm. hard nodule	Hardness of nodule	Follicular carcinoma
89,154	72	W	M	Enlarged rt. lobe	Very hard and fixed	Adenocarcinoma Grade III
75,204	66	W	F	Greatly enlarged lt. lobe	Hard, lymph node metastasis	Adenocarcinoma Grade IV with metastasis

The 4 cases that were strongly suspicious of thyroid cancer showed hardness, fixation and metastasis, while one gland had increased greatly in size over the preceding 10 months. During this same period, there were 230 operations for nontoxic goiter. Thus, there was an incidence of 3.5% of cancer patients among the nontoxic thyroids operated upon. Using the figure of 4 unsuspected thyroid cancers, in a total of 230 nontoxic thyroid operations, one arrives at an incidence of 1.7% unsuspected cancers in the nontoxic goiters in this hospital. The operative mortality for nontoxic goiter during this same period was 0.6%. The point, then, seems clear that nodular goiter is not uncommon, being present in 5 to 10% of all routine physical examinations with the incidence rising as the age of the patient increases over age 50. The above case reports would also tend to suggest that thyroid cancer is rare. This conclusion seems to be borne out by the fact that in any fairly

large group of physicians, the number of patients with thyroid cancer treated personally by the physician is somewhat small. A study at Vanderbilt Hospital over a 15 year period showed an incidence of only 2 cases of thyroid carcinoma per year, representing 3.8% of all thyroid glands removed.¹⁰ It is interesting that in the City of Memphis Hospitals, in the above reported series, there also were discovered 2 cases per year of thyroid cancer. A review of the Department of Pathology records¹¹ for all the Memphis hospitals for the above mentioned 10 year period (1949-1959) revealed 217 new cases of thyroid carcinoma, which would average about 22 new cases of thyroid cancer per year. Considering the population of Memphis (300,000 to 500,000+) and the fact that it is a referral center for many communities in the mid-South, this would seem to be a relatively small number of such cases.

Discussion

What is the accuracy with which a clinical diagnosis of thyroid cancer can be made? Is Dr. Crile's clinical diagnostic accuracy of 80% correct? In the above survey at the City of Memphis Hospital, the clinical diagnosis of cancer was accurate in 80% of cases. It also might be pointed out that in 3 cases the suspicion of cancer was high, but no carcinoma was found at operation. Two of these represented nontoxic nodular goiters and one had a cancer of the esophagus. The survey from Memorial Hospital, Clarksville, shows a clinical accuracy of thyroid diagnosis of 50%. Other studies have been done in a similar fashion in the Cleveland Clinic, New York City, Mayo Foundation, and 3 hospitals in California.⁹ All show between 60 and 100% clinical accuracy in diagnosis of cancer of the thyroid. Therefore, the accuracy of the clinical diagnosis of thyroid cancer would appear to be fairly good.

In addition to the mortality and morbidity rate, the removal of thyroid nodules might cause other harm. When a part of the thyroid gland is removed, less thyroid hormone is produced (at least temporarily) and therefore the pituitary in a compensatory fashion increases the production of thyroid stimulating hormones. Under the influence of thyroid stimulating hormone, the patient tends to have a recurrence of goiter. If the thyroid nodule is malignant and not completely removed and is hormone dependent, the increased thyroid stimulating hormone may cause increased growth and spread of the malignancy. Werner's text, quotes Sokal to the effect that of 371 cases of nontoxic nodular goiters operated upon, a definite recurrence of the goiter appeared in 22%; in a half of which a second operation was necessary. There was a probable recurrence in another 12% of these cases, with a total recurrence rate of 34%. Of the 41 patients having a secondary operation, 38 had the same disease as at the time of the first operation. This fact tends to point to a relative decrease in thyroid hormone (T-4)—which causes a relative increase in TSH—the ultimate reason for nontoxic goiter.

George Crile¹² refers to a study in 1957 in which experimental animals had 13 different types of endocrine tumors produced by

disturbing the endocrine balance. At first, in all of these animals, the tumor would grow if the imbalance co-existed and was therefore reversible. As the imbalance persisted, autonomous growth persisted and the change became irreversible. Furth¹³, in 1953, reported that 4 different investigators had produced thyroid carcinoma in rats by giving thiouracil, which in turn causes an increase in TSH. This mode of cancer production was used along with or without carcinogens. In the stages of development of these carcinomas, the first stage was hyperplasia and then adenoma formation, followed by a well differentiated carcinoma. All of these endocrine tumors could be transplanted if the imbalance in the receptor rats still existed. Soon the tumors were transplantable even without this endocrine imbalance. There is, of course, a parallel in clinical observation of treatment of carcinoma of the breast and the prostate, i.e., if the imbalance of these tumors is corrected, the growth will recede. Crile¹¹ attempted to show that many carcinomas of the thyroid, even though they metastasize, are endocrine dependant, and that if TSH production is suppressed with thyroid hormone, the growth will recede or in some cases stop. This is particularly true in papillary carcinoma. Crile quotes Dr. Dunhill, as reporting in 1934 an 8-year-old child with papillary carcinoma that recurred at age 13. He was treated at that time with large doses of thyroid and had no recurrence in a period of 5 years. Two other cases have been reported where a lung metastasis disappeared on thyroid medication, and a total of 5 instances of cancer of the thyroid have been followed for a period of 8 to 20 years, treated only with thyroid hormones and with good success.

Astwood and associates¹⁵ treated nontoxic goiter over a period of one year with the following findings:

Type Goiter	No. of Goiters	% Complete Remission	% Moderate Remission	% No Remission
Diffuse	115	33	34	33
Nodular	78	24	52	24
Single nodule	37	27	27	46
Totals:	230	29%	39%	32%

Noted above is the fact that 29% of these goiters disappeared completely and 39% decreased moderately in size. Hypothyroid patients (16% of the goiter patients) responded better to treatment. The usual dose given was 3 grains of thyroid per day. Only 16% of those on this dosage had symptoms from the medicine, and another 11% of these patients received over 3 grains of thyroid per day. Of 24 patients with slight or no regression on thyroid treatment, 11 showed poor suppression of TSH (as evaluated by radioactive iodine uptake). If the gland was diffuse and extremely large (over 50 gm), none disappeared completely. However, the large nodular and the large solitary nodular goiters responded as well as the smaller goiters. The suppression of goiters with thyroid made no difference regarding the duration of the goiter nor did the age of the patient. It was significant to note that in this one-year study there was no development of cancer in any of the 230 cases of goiter. Vander's⁴ report of the Framingham Study found 218 persons with nontoxic, nodular goiter in a group of over 5,000 people, followed for a 15 year period. These 218 persons constituted 4.2% of the total population under observation and could be considered as equivalent to a maximal prevalence rate. One hundred thirty-nine of these patients still had their nodules present at the end of the 15 year period. None of those removed were histologically malignant, and none of those present showed any clinical evidence of malignancy.

Another survey from a small community hospital in Thomasville, Georgia, was reported in 1951 with 214 cases of nontoxic goiter in the period between 1925 and 1950.¹⁶ Operation in 60 cases showed an incidence of cancer in 1.7%. It is noteworthy that this series of reported patients were operated on with nodular goiters, especially with a discrete nodule, whenever the patient would agree to operation. None of these patients developed cancer later. This 1.7% incidence of cancer would compare with the 3.5 incidence of all cancer patients in operations on nontoxic thyroids at Memorial Hospital in Clarksville, over the last 15-year period as reported above. The study of Mortensen and associates in 821 consecutive autopsies

for clinically normal thyroid glands showed an incidence of 4.2% malignant nodules in the group. This study is reminiscent of the findings of carcinoma in the prostate in 25% of all men over age 50 at the autopsy table, though the incidence of clinical carcinoma of the prostate does not seem to be nearly this significant. Likewise, deaths from carcinoma of the thyroid are relatively rare. Among the earlier analyses of the incidence of malignant thyroid tumors at necropsy was that of Wilson¹⁷ in 1921. Of 74,335 cases examined postmortem, amassed from 10 sets of observations, a total of 193 thyroid cancers were diagnosed, an incidence of 0.26%. Vanderlaan¹⁸, in 1947, revealed the low incidence of thyroid cancer as a cause of death in general hospitals. Analysis of records covering a 50 year period at the Boston City Hospitals showed there were only 5 deaths from thyroid cancer among 18,668 necropsies. This seemed to be confirmed further by an analysis of statistics from the American Cancer Society by Sloan and Frantz¹⁹ who concluded that death from thyroid cancer is rare, amounting to only 0.6% of all deaths from cancer in the USA. Astwood²⁰ has suggested the philosophy "All nodular thyroid glands are best treated with TSH suppression by thyroid on the grounds that benign lesions constitute no threat; that well differentiated carcinomas are not truly dangerous; and that with poorly differentiated carcinomas, surgical treatment is of no value."

Summary

(1) Two new series of cases of thyroid cancer have been presented.

(a) The City of Memphis Hospitals records show an incidence of 6% of cancer in all nontoxic goiters and an 1.2% incidence in nonsuspicious, nontoxic goiters.

(b) At Memorial Hospital, Clarksville, in a 15 year period, there were 8 instances of thyroid cancer in nontoxic goiters, 1.7% incidence of thyroid cancer in nonsuspicious, nontoxic goiters. The accuracy of clinical diagnosis of thyroid cancer in the above two studies was 80% and 50% respectively.

(2) The rationale of treating nontoxic

goiter with suppressive doses of thyroid hormone was discussed.

(3) A philosophy of the management of thyroid nodules was discussed. This philosophy might well be stated as follows: It is unwise to remove all thyroid nodules or to remove none. If the thyroid is clinically suspicious of containing cancer, it should be removed if at all possible because the accuracy of clinical diagnosis is fairly good. If the nodule is not removed, a trial of thyroid hormone or observation may be indicated. Suppressing doses of thyroid hormone should be given postoperatively to all patients after a thyroid resection to prevent recurrence of goiter, or growth of a hormone dependent tumor that may have been left in the thyroid.

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The authors record the findings of pulmonary vascular lesions in an unusual family study.

PRIMARY PULMONARY HYPERTENSION

A Study of the Disease in Four Young Siblings*

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A family of 7 children, 4 of whom died over a period of 7 years from primary pulmonary hypertension (PPH) is presented. This interesting family first became known to us in June of 1966 when a 20 months old white girl was admitted to Children's Hospital of Chattanooga with a diagnosis of congestive heart failure (Case 1). During her hospitalization, the family history revealed that a 12 year old sister of the patient was bedridden at home with well documented PPH. Further questioning disclosed that 2 additional siblings had died in the preceding 6 years, one with an "enlarged heart" and one following several hours of "convulsions." The 12 year old died at home a short time later and permission for autopsy was granted. She is described in Case 2 of this report. The 2 older siblings died at other and different hospitals in this area at ages 20 and 15 months. The clinical records and pathologic material became available through the courtesy of the attending physicians and the staff pathologists. These are Cases 3 and 4.

Because of the remarkable story of this family, a survey was undertaken by one of us (H.M.) and is outlined in the family tree (Fig. 1). At the time of the survey, the father was 64 and the mother 43. A child of the mother by a previous marriage was 15 years old and apparently healthy. Examination of both parents and the 3 remaining siblings, including chest x-ray and ECG, showed no evidence of PPH. Chromosome studies of the parents and one of the affected children (Case 1) showed normal

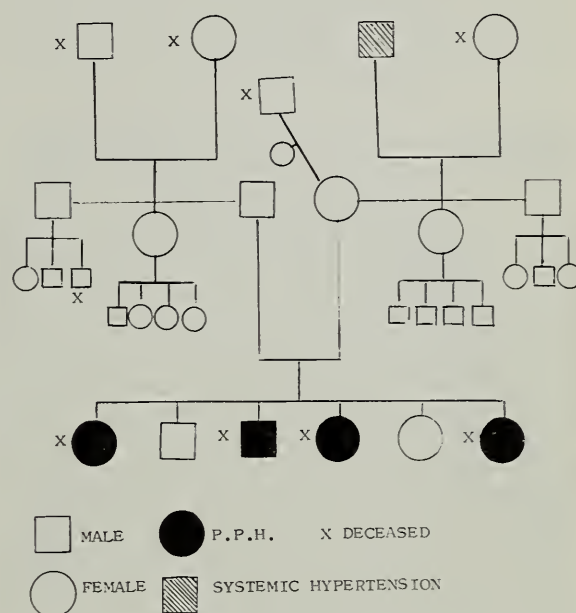


FIG. 1: Family tree of 4 siblings with primary pulmonary hypertension. The causes of death in the "deceased" cases were unrelated to PPH.

karyotype and their hemoglobin electrophoresis was type "AA".

Case 1. This child had been born at 7 months gestation by caesarean section. The birth weight was 1,360 gm. She stayed in a premature unit for 7 weeks and was dismissed in apparently good condition weighing 2,350 gm. There were no neonatal complications.

She did well until she was 8 months of age when she was readmitted to a hospital for upper respiratory infection and anemia. The Hgb. was 5.7 gm./100 ml. Chest x-ray at this time showed no evidence of cardiomegaly. She responded to treatment and was dismissed. During the next 10 months, the child had a poor appetite, gained weight slowly, and was hypoactive. At this time, the mother noted occasional episodes of vomiting and "blue spells." Several days before admission the child became listless and breathing was rapid. She was admitted to Children's Hospital with a diagnosis of congestive heart failure at 21 months of age.

Physical examination on admission disclosed a

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chronically ill child who was cyanotic and showed generalized edema. The weight was 8,300 gm. P. rate was 116/min and respiratory rate was 60. BP was 106/70. There was frank cyanosis of the lips and the neck veins were distended. There was moderate precordial bulging and the PMI was at the 7th intercostal space in the anterior axillary line. Auscultation revealed a grade 2/4 holosystolic murmur over the entire precordium with loud snapping pulmonic closure and fixed splitting of the second sound. The liver descended 4 cm below the right costal margin. There was 2+ pitting edema of the lower extremities. The chest x-ray revealed marked cardiomegaly with right ventricular enlargement (Fig. 2). ECG showed sinus rhythm and right



FIG. 2: (Case 1) The cardiac silhouette is diffusely enlarged, and the lungs are clear. (A lateral view did show evidence of right ventricular enlargement.) Pulmonary blood flow appears normal.

ventricular and right atrial hypertrophy (Fig. 3). The Hgb. was 13.2 gm. Examination of the peripheral blood showed nothing unusual. Urinalysis showed 1+ albumin. A tentative diagnosis of primary pulmonary hypertension was entertained. The child responded fairly well to digitalization and oxygen. There was decrease in the heart size on the 4th day. The family refused permission for cardiac catheterization and the patient was dismissed. Two weeks later she was returned to the emergency room, dead on arrival.

The *postmortem examination* was limited to the thorax and was performed after embalming. Examination of the heart and lungs in situ disclosed no gross abnormality of the great vessels. The pericardial sac contained only a small amount of fluid. The surface was smooth. The heart weighed 100 gm. (Normal weight 58 gm.) The organ was greatly enlarged and much of the increment consisted of right atrium and ventricle. The muscle of the right ventricle measured 12

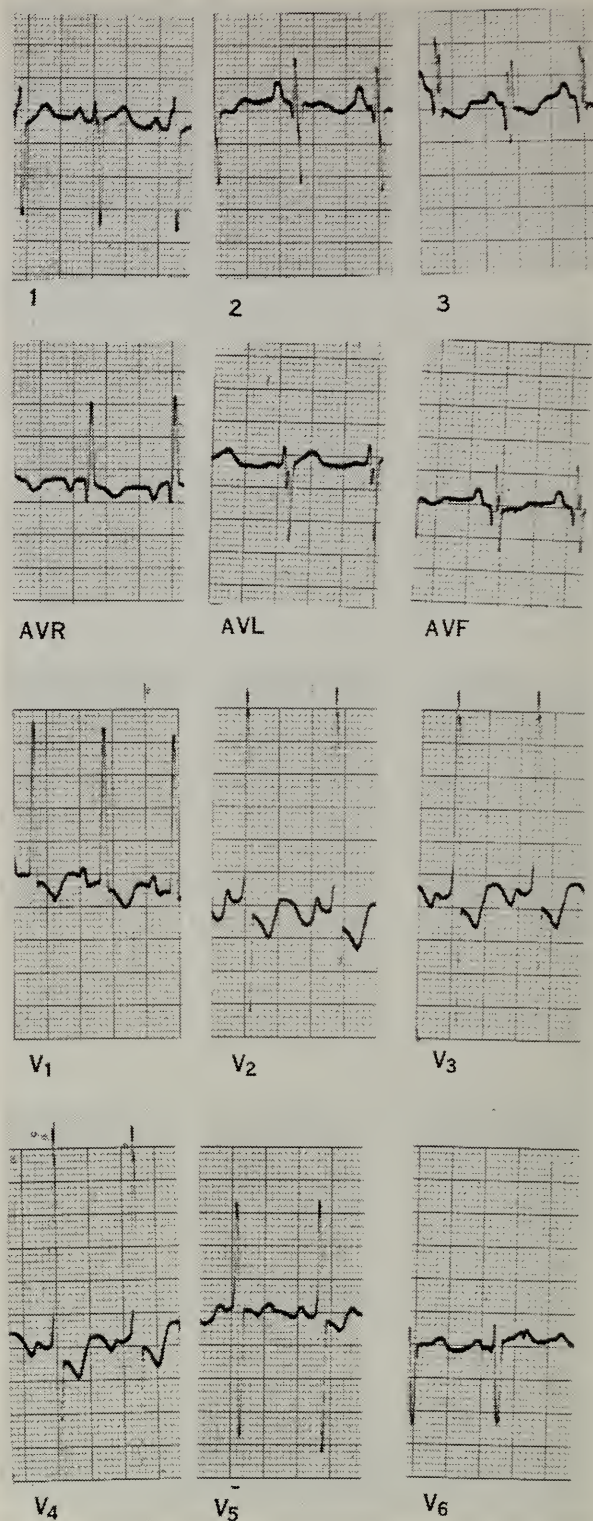


FIG. 3: (Case 1) The ECG shows marked right ventricular hypertrophy and atrial enlargement.

mm in thickness and the left measured 9 mm. There was manifest hypertrophy of both of the right chambers and there was also a dilatation of the ventricle. The pulmonary valve measured 4.0 cm and the aortic measured 3.5 cm. All valves appeared competent. There was no abnormal communication. The mural endocardium was thin. The pulmonary artery appeared larger

than the systemic aorta. The lungs appeared congested and somewhat edematous. There were a few small areas of hemorrhage and there were pleural petechiae.

Microscopic examination of the heart confirmed enormous hypertrophy of the myocardium of the right ventricle. The hypertrophied fibers usually contained enlarged and angulated nuclei. There was no significant degenerative change. There was slight interstitial edema sometimes accompanied by widely scattered monocytes. The mural endocardium generally showed only slight thickening. However, in a block of the right atrium there was slight fibroelastosis of the endocardium.

The many sections of lung tissue included a number of large arterial branches. These showed no significant atheroma and in general were relatively thin and well preserved. The muscular arteries of medium and small size were strikingly thickened often to the point of apparent occlusion of the lumen. In many of the vessels of medium size, the sclerotic process involved the medial coat primarily or almost exclusively (Fig. 4). The elastic layers were duplicated and

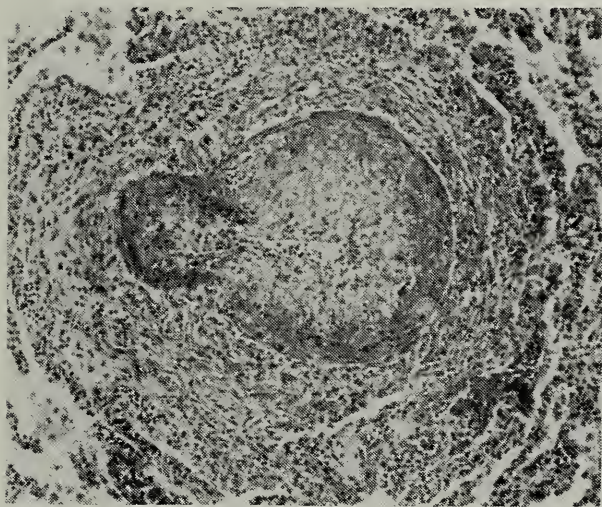


FIG. 4: (Case 1) Severe sclerosis of a musculo-elastic artery. (x 500)

frayed and there was severe and often eccentric thickening. The intima was markedly thickened by connective tissue. The lumens were often diminished to vessels of capillary size. Sclerosis of similar type and degree affected the small muscular arteries. At times there was an additional lesion of the medial coat in which a fibrin-like substance replaced some of the muscle. This process was sometimes accompanied by an infiltration of polymorphonuclear leukocytes. A few such lesions were dilated locally. The adventitial coat of some vessels was greatly thickened and showed a permeation of small capillaries and sinusoids which appeared to be anastomotic. The capillary bed throughout the lungs was engorged, but the vessels appeared

thin. The small veins were delicate in structure and showed no lesion.

The pulmonary parenchyma generally was poorly inflated. There were areas of edema and there were also small areas of hemorrhage.

Case 2. This girl was the older sister of the subject of Case 1 and died at the age of 12 years. It appears that she enjoyed fairly good health until she was 11 years old when the mother noticed swelling of the hands and some difficulty in breathing.

A month later she was admitted to a local hospital and the diagnosis of chronic rheumatic heart disease was made. She was digitalized and referred to a consultant for cardiac catheterization. By this procedure a diagnosis of primary pulmonary hypertension and tricuspid insufficiency was made.

Examination at the time described a small white girl with slight duskeness of the lips and swelling of the extremities. She weighed only 43 lbs and was 49 inches in eight. Pulse rate was 45/min and respiratory rate was 20/min. The BP was 80/60. The precordium was diffusely heaving but without a thrill. The pulmonic sound was single and moderately accentuated. A faint diastolic murmur was audible around the pulmonic area and a louder (Grade 3/6) systolic murmur of tricuspid regurgitation was heard along the lower sternal border. There was also a 3rd heart sound along the sternal border and at the apex. The liver and spleen were palpable. Chest x-ray showed marked cardiac enlargement involving the right ventricle and right atrium (Fig. 5). The central pulmonary artery was



FIG. 5: (Case 2) the massively enlarged heart is associated with pulmonary venous engorgement, as evidenced by the dilated upper lobe veins.

dilated. ECG revealed right ventricular hypertrophy with almost total exclusion of left ventricular forces, and right atrial hypertrophy with first degree heart block (Fig. 6). Cardiac catheterization disclosed a right ventricular pressure of 126/12, right ventricular outflow tract 114/12, and right atrium 13. Oxygen satu-

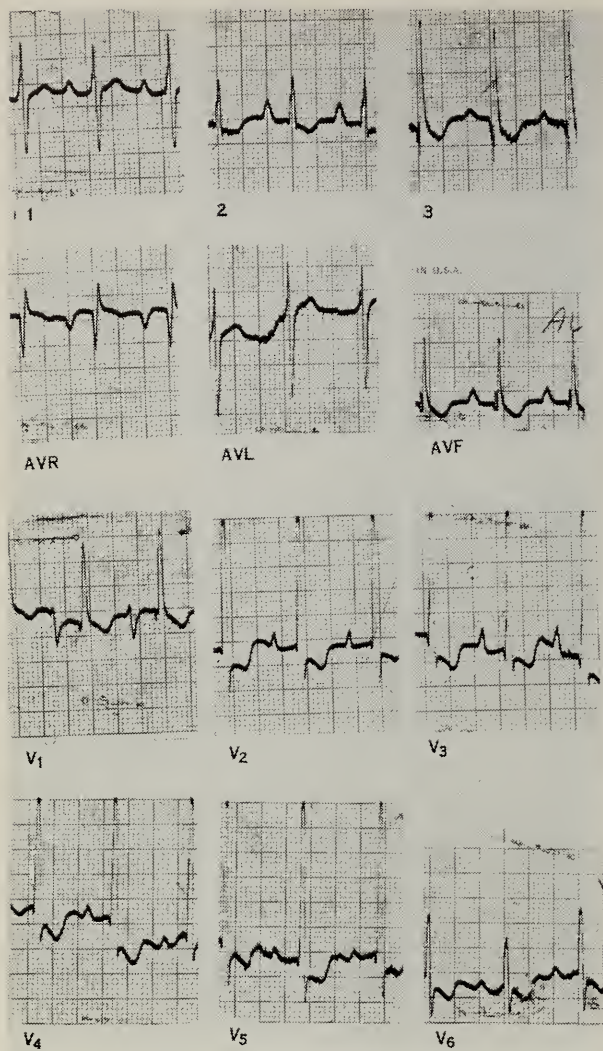


FIG. 6: (Case 2) The ECG shows right ventricular hypertrophy and right atrial enlargement. Also present is 1st degree heart block.

ration and angiogram showed no intracardiac shunt. There was marked desaturation of venous blood and cardiac output was markedly reduced. The patient was digitalized and was dismissed to be followed in the outpatient department. Her condition gradually deteriorated and she died some 9 months after the initial diagnosis of PPH was established.

Postmortem examination was limited to the thorax. There were no external findings of importance. There was a small amount of bloody fluid in both pleural cavities. The pericardial cavity contained no excess fluid and the surfaces were smooth and glistening. Exploration of the great vessels in situ disclosed no evidence of thrombosis or embolism.

The heart weighed 310 gm. (Normal 145 gm.) The organ was 14.5 cm in vertical diameter and 10 cm in transverse diameter. The right atrium and especially the right ventricle showed massive hypertrophy and dilation. The left atrium and left ventricle were contrastingly small. The average thickness of the right ven-

tricle was 12 to 15 mm and that of the left only 6 mm. The pulmonic valve was 5.5 cm in circumference and the aortic valve was 3.5 cm. The pulmonary artery exceeded the systemic aorta in diameter. The lungs showed congestion and mild edema. There was no consolidation.

Microscopic changes in the heart paralleled those observed in Case 1. There was massive hypertrophy of the right ventricular musculature. By contrast the left ventricle was composed of essentially normal fibers of average or slightly diminished diameter. This contrast was readily seen in blocks through the interventricular septum where differences in the fibers were at once apparent. There appeared to be slight interstitial edema. There was slight endocardial thickening in some areas of the right ventricle, but the right atrium did not disclose fibroelastosis of the endocardium.

The numerous sections of lung were generally air-bearing. There were patches of edema and small areas of hemorrhage. The large arterial branches often showed slightly elevated patches of atheroma characterized by an influx of lipophages and by irregular elevation of intima (Fig. 7). The medial coat was slightly thickened.

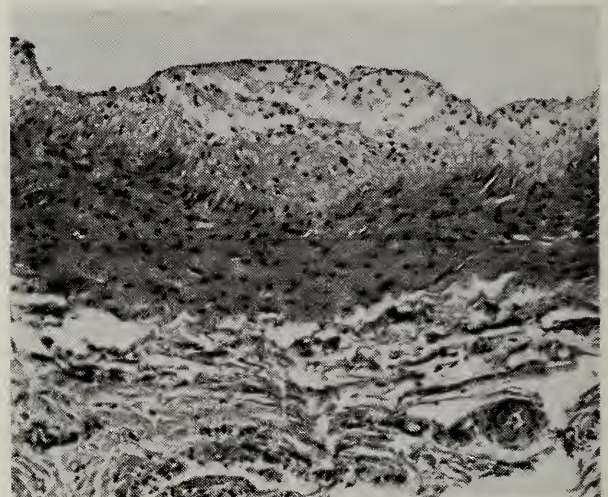


FIG. 7: (Case 2) Intimal atheroma in a large branch of the pulmonary artery. (x 500).

Many of the small arteries showed hypertrophied medial coats and the lumens were correspondingly diminished. However, elastic tissue duplication and splitting was insignificant and much of the augmentation appeared to be intimal rather than medial. Lesions of the small arteries were proportionate and again appeared to be occasioned by intimal fibrosis rather than fibromuscular or muscular thickening (Fig. 8). A few vessels were virtually obliterated and others contained very small lumens. Angiomatoid lesions were infrequent. The capillary bed showed nothing of note and the venous return was delicate.

Case 3. This was an older male sibling who died in 1959 at the age of 15 months. The parents thought the child was not doing well for

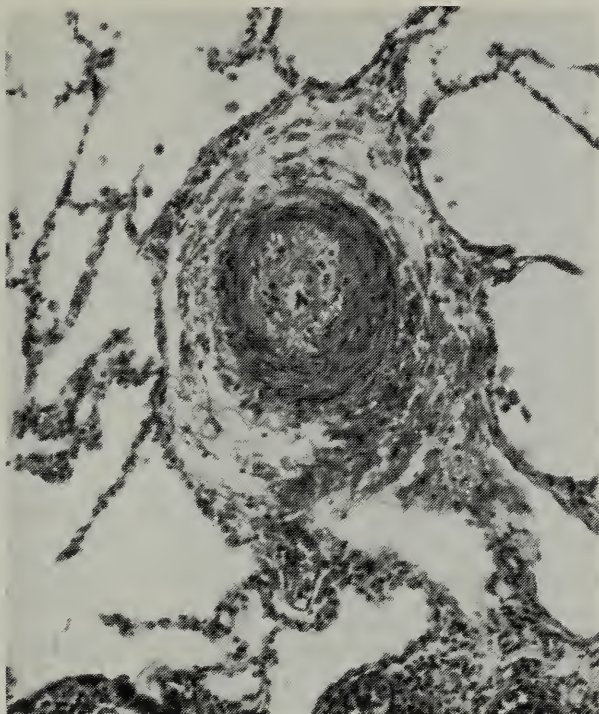


FIG. 8: (Case 2) Intimal fibrosis of a small artery. (x 500.)

several months before admission and he was described as hypoactive. For 3 days before admission, he was short of breath and vomited. There was some fever and he was thought to have a "cold."

Physical examination on admission revealed an edematous, malnourished child, who was acutely and chronically ill. There was evidence of congestive heart failure. Rales were present throughout both lung fields and the heart was enlarged. The sounds were of poor quality, but there were no definite murmurs. The liver extended to the iliac crest. The legs were edematous. Reflexes were physiologic. A chest x-ray showed cardiomegaly (Fig 9). He was digita-

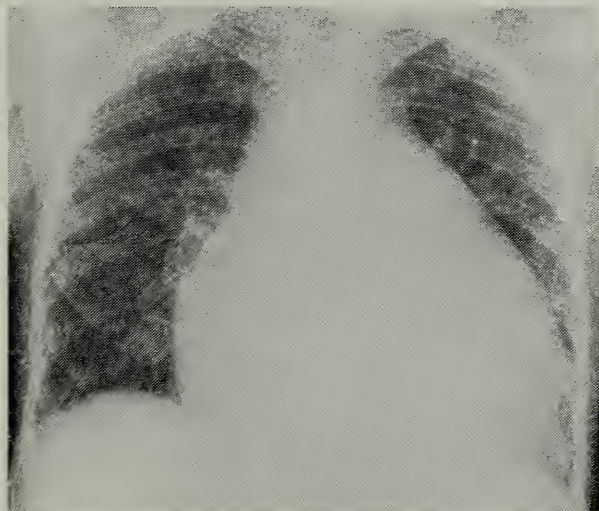


FIG. 9: (Case 3) The heart shows gross enlargement. There is a reticular pattern in the lungs, probably due to interstitial edema.

lized and given supportive treatment for his cardiac condition. He appeared to be responding to treatment, but on the 4th day suddenly became short of breath while feeding and expired soon after.

Postmortem examination was performed within a short time of death. There was no fluid in the peritoneal cavity, but there was free fluid in each pleural cavity. The un-opened pericardial sac was grossly enlarged, but there was no excess of fluid. The heart weighed 110 gm. (Normal weight 60 gm.) There was impressive enlargement of the right ventricle. All valves appeared competent. There were no anomalous communications and the foramen ovale was closed. The systemic aorta appeared normal.

The right lung weighed 80 gm. and the left lung 70. There was dark red mottling throughout. The thymus and the gastrointestinal tract were normal. The liver was enlarged to 330 gm. and appeared congested. The spleen was also moderately enlarged. The adrenal glands and the kidneys were grossly normal.

A section of the cardiac septum was available for *microscopic study*. There was a manifest hypertrophy of the fibers of the right ventricle. Minimal fibroelastosis of the endocardium was present.

In many sections of lung, the pleural surface was normal. The parenchyma was engorged and there was slight edema. As in the preceding cases, the small muscular and musculo-elastic arteries were uniformly and severely sclerotic. The smallest branches usually showed concentric fibrosis of the medial coat, sometimes exaggerated by intimal proliferation. Occasional vessels showed areas of medial degeneration resembling fibrinoid (Fig. 10). Adventitial pro-

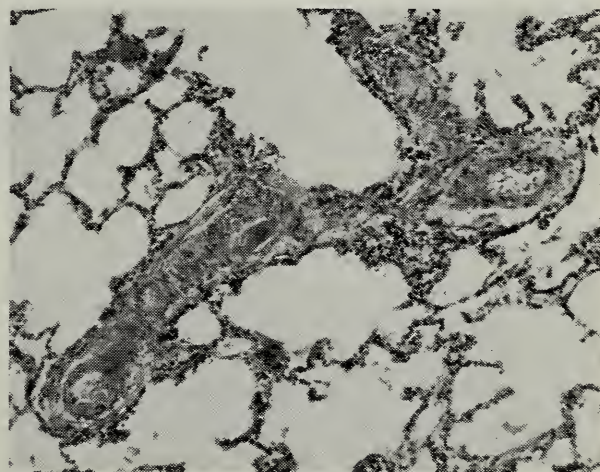


FIG. 10: (Case 3) Fibrinoid degeneration in a small artery. (x 500.)

liferation was also observed and some of the larger vessels showed thickening of the elastic coat.

There was severe centrilobular congestion of the liver. There was no significant alteration of

the spleen, the pancreas, the adrenal glands, or the kidneys. Lymph nodes and autonomic nerve were within normal limits. The systemic arteries and arterioles were singularly normal.

Case 4. This was a female sibling who died in August 1962 at the age of 20 months. The clinical history was sketchy. She was said to have been sick for several days, and several hours before admission had a generalized convulsion. She was brought to the emergency room in a comatose state with occasional jerking seizures. The neck was stiff. The heart and lungs were thought to be negative. Emergency measures were undertaken but were ineffective, and the child died within an hour.

Autopsy disclosed a normal peritoneal cavity. There were light adhesions of both lungs. The heart was enlarged. Right ventricular preponderance was not described. The endocardium was thin and the valves were competent. Both lungs were firm and there were areas which were thought to be atelectatic. The liver weighed 400 gm. and showed gross evidence of congestion. The spleen appeared enlarged and firm. The brain appeared edematous.

Microscopic examination showed no abnormality of the left ventricle. Unfortunately the right ventricle was not sectioned. The lungs were air bearing, but some areas were poorly inflated and there was evidence of aspiration of gastric content. The small arteries were markedly thickened. This was usually in the form of medial hypertrophy. Adventitial thickening was also observed. A few of the small vessels showed evidence of intimal proliferation and several were thrombotic.

The liver showed severe passive congestion with small areas of centrilobular necrosis. There was passive congestion of the spleen. The pancreas, the adrenal glands, the gastrointestinal tract and the kidneys were essentially normal. The brain was also normal except for slight edema. There was no meningitis.

As in Case 3, the systemic arterioles of all organs were normal.

Discussion

Pulmonary hypertension as an isolated or primary disorder was first publicized by Clarke and associates¹ in 1927. They stated that the disease was more common in females and raised the possibility of familial incidence. However, in the succeeding years, most references to the disease described only sporadic and unrelated cases, usually occurring in adults²⁻⁵. More recently, examples of familial disease⁶⁻¹² and increasing numbers of cases in young subjects have appeared¹³⁻¹⁸.

The etiology of PPH is unknown. The disease in the youngest group of patients, as

described in this report, appears to be a congenital disorder of the pulmonary arteries. The similarity of the pathological features to fetal pulmonary vessels has been noted by Edwards¹⁹. In the older group of patients, the question of thromboembolic phenomena has been raised²⁰. Other etiologic considerations have been reviewed by Czanecki and associates¹¹. It appears that the PPH in young subjects is congenital and may be a different entity from the disease in adults, as suggested by other authors^{17,18}. The preponderance of females is borne out in this report.

This is the first report in which chromosomal preparations were studied (both parents and one patient). These karyotypes were normal. The possibility of a recessive trait inheritance has been suggested by Nadas¹⁸. Braunwald^{8,9} has postulated an incomplete penetrance but exact mechanism of genetic transmittance is not established.

Severe RVH and enormous enlargement of the cardiac silhouette are found in typical cases. Slight cyanosis of the lips, right heart failure, accentuated pulmonary closure sound with pulmonic diastolic and tricuspid systolic murmurs are typical of advanced PPH. A definite diagnosis can be made by heart catheterization. No specific treatment is available. Supportive measures for right heart failure are indicated.

It is noteworthy that a distinct difference in the pulmonary arterial lesions exists between the rapidly progressive disease and the more slowly evolving disease as illustrated by our Case 2. In the former the small arteries were severely affected by lesions acting on the medial coat primarily. In the latter, intimal thickening was predominant and the major arteries showed atheromatous deposits. Systemic vessels were normal in both types.

Summary

Three siblings from a family of 7 died at ages 15, 20, and 21 months, following relatively short illnesses. These were found to have "acute" pulmonary arterial lesions of PPH. A fourth child lived to age 12 years with more slowly evolving clinical course and pathological lesions. A survey of 3 generations of the family disclosed no

further cases. Chromosomal studies of the parents and one of the patients disclosed no apparent derangement.

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CLINICOPATHOLOGIC CONFERENCE

Veterans Administration Hospital Bronchiolar Carcinoma*

C. E. EASTRIDGE, M.D. and

C. F. MILLER, M.D.

Present Illness. This was the first admission of a 66 year old negro farm laborer whose illness began 7 months before admission with "flu-like" symptoms, characterized by general malaise, anorexia and attacks of fever. He denied any chills or night sweats, but had lost approximately 50 lbs. during this time. Treatment by his local physician, including penicillin, gave only temporary relief. On admission, he complained of a paroxysmal cough occurring mainly at night, and occasionally wheezing. He stated that he raised considerable sputum, none of which was purulent nor contained blood. In the month before admission he had become increasingly short of breath, especially on exertion, though he was not short of breath when lying flat. He denied ever smoking or drinking. One brother had died of tuberculosis many years before.

Examination. T. was 99.4, P. 120, B.P. 140/90. On admission the patient appeared chronically ill and showed evidence of much weight loss. He appeared weak and frail, but not in acute distress, and was oriented and cooperative. The chest was of normal configuration with equal excursion bilaterally. There were diminished breath sounds on the right, and bronchial breathing over the left lung field. Except for tachycardia the heart was normal. The abdomen was scaphoid, and no organs or masses were felt. The abdominal muscles were voluntarily tense. The remainder of the examination was not significant.

Laboratory Data. Urinalysis revealed nothing of significance. Initial hemogram showed: WBC count of 5,400, 54% PMN, 31% lymphocytes, 14% monocytes and 1% PME.; RBC count of 2,960,000, Hct. of 26, Hgb. 8.6 gm.; smear showed anisocytosis and target cells; corrected ESR. was 21. A second hemogram was essentially the same except for 5% PME, and an RBC count of 3,880,000 with an Hct. of 34, Hgb. of 9.9 gm., and ESR of 30. The BUN was 12 mg.%, transaminase 40 units, total protein 6.7, albumin 2.9, and globulin 3.8 gm. for 100 ml; calcium of 9.6, phosphorous 3.8, PPBS 108 mg. for 100 ml., and an amylase of 112 units. Smear and cultures of urine and sputum were negative for acid-fast bacilli. Two sputa showed *Candida albicans*. Pleural fluid and bone marrow were both negative for fungi and acid-fast bacilli. The bone

marrow smear was nondiagnostic. Cytology of the sputum showed atypical cells present on several occasions. The stools were negative for blood. Histoplasmin skin test and STS were, PPD #1 negative, PPD #2 positive 2.5 cm.

X-ray. Chest: the heart was not enlarged; the aorta was somewhat elongated and tortuous; seen scattered throughout both lung fields were numerous nodular densities which spared no segment of either lung. There was also a large area of hazy density in the right lower lung field, and a pleural effusion at the right base. Multiple chest films throughout his hospital course showed little significant change. An upper GI series, barium enema and metastatic survey were all negative.

Hospital Course. The patient was treated symptomatically during his hospital stay. Initially he seemed to show slight improvement, but thereafter his course was progressively downward with increasing weakness and dyspnea. The T. showed an almost daily elevation from 99 to 102°. Pleural biopsy was nondiagnostic. About 5 ml. of pleural fluid obtained at this time was yellow and nonbloody. A therapeutic trial with INH and streptomycin produced no alteration in his downward course. He died quietly approximately 6 weeks after admission.

Clinical Discussion

DR. C. E. EASTRIDGE: I would like to summarize the positive findings in the patient for today. He was a 66 year old non-smoker with an illness of 7 months duration. The onset was "flu-like" characterized by general malaise, anorexia and attacks of fever. Though under treatment by a physician, he had lost 50 lbs. in weight. A month or so before admission, he developed cough with production of considerable amounts of non-purulent, nonbloody sputum. There was increasing breathlessness on exertion, but this dyspnea was not accentuated on lying flat. The physical examination and laboratory findings revealed only a chronically ill patient with decreased breath sounds over his right chest and some bronchial breathing found over his left chest. He was anemic with a slight eosinophilia. Cytology was positive for atypical cells, but the cultures were negative for acid-fast bacilli and fungi. The x-ray showed numerous densities scattered throughout both lung fields (Fig. 1). Following admission, this man had a progressive downhill course and apparently died from cardiorespiratory failure.

When we consider all of these important

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FIG. 1 X-ray shows diffuse bilateral nodular infiltrates.

points, I think that one must approach this case from the standpoint of the fatal causes of diffuse pulmonary infiltrates. This list consists of perhaps 200 to 300 causes which we will not consider at this time, but select the possible conditions which can cause diffuse pulmonary infiltrates and/or interfere with diffusion of gases across respiratory membranes resulting in cardiorespiratory failure. Table 1 lists some of the important causes.

TABLE 1
SOME CAUSES OF
DIFFUSE PULMONARY INFILTRATES

- I. Infections
 - A. Bacterial
 - B. TB and fungi
 - C. Parasites
 - D. Diseases possibly infectious of unknown etiology
 1. Hamman-Rich syndrome
 2. Pulmonary-alveolar proteinosis
- II. Pneumoconiosis
 - A. Bagassosis
 - B. Byssinosis
- III. Systemic Diseases
 - A. Wegener's granulomatosis

- B. Sarcoidosis
- C. Idiopathic pulmonary hemosiderosis

IV. Inhalation

- A. Farmers lung
- B. Silo fillers disease

V. Circulatory

- A. Pulmonary edema
- B. Multiple pulmonary emboli
- C. Sickle cell anemia

VI. Neoplastic

- A. Metastatic adenocarcinoma
- B. Lymphangitic carcinomatosis
- C. Bronchiolar carcinoma

1. *Infections.* I believe that bacterial pneumonias can be ruled out in this case because of the long course of the disease, slight elevation of temperature, a normal white cell count and the description of the lesion on chest x-ray. In considering tuberculosis and fungus diseases, the negative sputum cultures and the distribution of lesions would make these conditions unlikely. Re-infection tuberculosis and fungus disease usually are not diffuse in their distribution, but patchy, asymmetrical and located in the apical and posterior segments of the upper lobes or the superior segments of the lower lobes. Parasites can cause diffuse pulmonary infiltrates and since this is a CPC case, pneumocystis carinii probably should be mentioned. This condition is characterized by a diffuse perihilar infiltration with dyspnea and death from cardiorespiratory failure. It is usually found in very ill children and is encountered more frequently in Europe. I know of 2 instances recently reported and treated in this country, but both in young children. This man, aged 66 years is old for this disease, and the infiltrate was described as nodular, while pneumocystis carinii produces a fine, granular, perihilar infiltrate. Other diseases that are possibly infectious, but with unknown etiology which can produce a similar picture are the Hamman-Rich syndrome and pulmonary alveolar proteinosis. The Hamman-Rich syndrome is characterized by a progressive pulmonary interstitial fibrosis with x-ray changes similar to pulmonary edema. This condition can cause pulmonary failure with death, usually

within a year. Histologically, there is a deposition of abnormal inflammatory cells, fibroblasts, hyaline and collagen in the alveolar septa. Clinically, the patients are dyspneic with cough and cyanosis. These patients may die with cardiopulmonary failure due to the impaired diffusion of gases across the thickened respiratory membrane, along with some impairment of ventilation. Pulmonary alveolar proteinosis results from a deposition of a proteinaceous material in the alveoli. The onset is insidious with dyspnea, weight loss, cough and secondary polycythemia. X-rays usually give a diffuse ground-glass rather than a nodular appearance. There is a diffusion defect which is thought to be due to the protein filled alveoli. These patients usually die from cardiorespiratory insufficiency and in most cases there is secondary polycythemia.

2. *Pneumoconiosis*. Since this patient was a farmer in the South, we must consider bagassosis and byssinosis. Bagassosis from inhalation of bagasse or sugar cane lint can cause bilateral pulmonary infiltrates, but there is no history of contact with this material. Byssinosis, caused by the inhalation of cotton lint, is probably not a cause in this patient because of the onset late in life. We also have a chest film taken 10 years before this admission which was interpreted as being clear.

3. *Systemic diseases*. In this category, one should think of Wegener's granulomatosis, polyarteritis, and lupus erythematosus which can cause bilateral pulmonary infiltrations and are of unknown etiology. Wegener's granulomatosis is probably a collagen disease characterized by giant cell granulomatous lesions with a diffuse necrotizing angiitis in the lungs sometimes associated with glomerulonephritis. The majority of these patients die of renal failure, and I can only recall one case reported in the New England Journal that did not have some evidence of renal involvement. The urine in this patient for today showed no evidence of renal involvement, which I think will rule out this condition. Sarcoidosis is another chronic granulomatous systemic disease that involves the lungs and can give diffuse bilat-

eral involvement. Infiltrates produced by sarcoidosis can be reticular or nodular, and there is usually involvement of the lymph nodes, liver, spleen, eyes, and skin. The findings possibly against a diagnosis of sarcoid, I believe, are the absence of lymphadenopathy, cutaneous involvement, splenic or hepatic enlargement, poly-arthritis or leukopenia. This patient's serum calcium was within normal range, but hypercalcemia is present only in about one-third of the cases of sarcoid. Idiopathic pulmonary hemosiderosis may produce a generalized pattern of fine nodular densities throughout both lung fields. This usually occurs before the age of 16 years and is due to recurrent hemorrhages in the lungs associated with bouts of fever, cough, dyspnea and hemoptysis.

4. *Inhalation*. I think farmer's lung due to inhalation of moldy hay and silo filler's disease from inhalation of nitrogen dioxide are unlikely. These are usually acute conditions coming on soon after contact with the above elements and will clear up in a few hours after the exposure has ceased.

5. *Circulatory causes*. Pulmonary edema will give a perihilar infiltrate which is fine and granular on x-ray, but there is usually evidence of heart failure manifested by cardiomegaly and/or hypertension. Multiple pulmonary emboli may produce a picture like this characterized by patchy, ill-defined densities throughout both lung fields with pleural fluid. Multiple small emboli cause a gradual destruction of the pulmonary vascular bed producing pulmonary hypertension, hypoxia, cor pulmonale, and death. In this patient, no blood gas studies were reported, but analysis of the blood gases, particularly the $p\text{CO}_2$ when compared with the end tidal $p\text{CO}_2$ done with an infrared analyzer can be helpful in diagnosing pulmonary emboli. If the difference between the arterial $p\text{CO}_2$ and the end tidal $p\text{CO}_2$, which is a measure of alveolar gas tension, is more than 5 mm. of mercury, one can suspect that the arterial supply to a segment of the lung is blocked. Since this was a Negro, sickle cell anemia with multiple pulmonary infarcts would have to be considered as a cause of the diffuse pulmonary infiltrate. I think this

can be ruled out because of his age and the absence of a past history of sickle cell anemia.

6. *Neoplasia*. Metastatic adenocarcinoma from the pancreas, stomach or colon may metastasize to the lung via the blood stream causing a diffuse bilateral nodular infiltrate. Histologically, the cells may line the alveoli producing copious amounts of mucus and causing respiratory insufficiency. Bronchogenic carcinoma may spread and fill the lymphatics producing a chest film as described in this patient, but hemoptysis is usually present. Diffuse bronchiolar or alveolar cell carcinoma can produce this exact picture, and we have seen one or two cases in the past year. These tumors produce a condition which resembles jaagsiekte disease in sheep or driving disease. There is a disagreement as to whether these tumors are multicentric or unicentric. I believe they are unicentric and arise from the lining cells of the terminal bronchioles or from the alveolar cells which can be seen by electron microscopy. These cells spread to other portions of the lung as aerometastases following sloughing of tumor cells. It is reported that these tumors have been localized for as long as 16 months and then have shown spread to the surrounding lung and to the contralateral lung. They usually originate in the peripheral portions of the lung, presenting as a discrete nodule varying in size from a few mm. to 10 cm. in diameter. The nodule is usually irregular in outline with sharp borders and frequently extends to the pleura producing pleural effusion. When the tumor becomes diffuse, these mucous producing columnar cells line the alveolar sacs, interfering with the diffusion of gases between the lung and the blood stream. These tumors are capable of producing considerable quantities of mucus. About 50% of the patients produce less than 90 ml. of sputum per day, but some are reported in the literature to produce as much as 3,000 to 4,000 ml. of sputum per day. When these tumors become widespread, diffusion and ventilation are interfered with, causing terminal cardio-pulmonary failure. The criteria for making a diagnosis of bronchiolar carcinoma are: (1) the tumor lining the alveoli must con-

sist of columnar or cuboidal cells with eosinophilic cytoplasm and basal nuclei; (2) the pulmonary architecture is preserved; (3) there is absence of intrinsic tumor of the bronchus; and (4) there is absence of a primary adenocarcinoma in other areas of the body. May we review the x-rays?

DR. ETTMAN: The film taken on admission shows the nodular, small, granular densities scattered throughout both lung fields, and as you can see, the nodules appear to coalesce in the right base (Fig. 1). The costophrenic angle on the right side is obliterated. The heart is not enlarged, and no other abnormalities are seen. No erosions of the ribs are noted. We are fortunate to have a film taken 10 years earlier, at which time there was no evidence of any densities within the lung fields. I believe this film of 10 years ago will rule out a lot of the causes of pulmonary infiltrates which take several years to develop.

DR. EASTRIDGE: With the x-rays showing a diffuse bilateral nodular infiltrate, a history of illness of 7 months, with respiratory insufficiency and a productive cough, with cytologic studies of the sputum being positive for atypical cells, my diagnosis will have to be a diffuse bronchiolar or alveolar cell carcinoma causing cor pulmonale and death.

Clinical Diagnosis: Bronchiolar Carcinoma

DR. YOUNG: Thank you, Dr. Eastridge. Is there any further discussion?

DR. HUGHES: I think we have to consider the possibility of a tumor with a superimposed fungus disease. Then, another possibility is that this is a pneumonia with a false-positive cytology. This can happen. We can see that this is a very progressive disease and that he died of dyspnea. I believe the proper diagnosis, however, is bronchiolar carcinoma.

DR. YOUNG: Certainly the idea of a disseminated fungal infection is not without some basis, because it may disseminate by invasion of a blood vessel and can show up most anywhere. In a debilitated patient, one can expect this occasionally, particularly in the presence of some other condition, such as severe anemia, steroid therapy, long courses of antibiotics, or one of the diseases

affecting the hematopoietic system, as leukemia or lymphoma. These secondary invaders are usually *Candida* or *Monilia*.

Anatomic Findings

DR. MILLER: This was a case of bronchiolar carcinoma. In the past, it has been more frequently called alveolar-cell carcinoma.

At autopsy, this was a poorly nourished elderly man. The pleural spaces were obliterated by adhesions and what appeared to be tumor. The lungs were greatly increased in size and very heavy. The surfaces were studded by nodules of tumor, and throughout both lungs, nodules were seen to be spread evenly. They were greyish-white and somewhat mucoid (Fig. 2). The



FIG. 2 Cut surface of the lung showing diffusely spread tumor nodules.

liver showed a few small tumor nodules, and the adrenals each contained tumor metastases. The periaortic lymph nodes also showed metastatic involvement. However, microscopically, the tumor cells filled and lined the alveoli. Some in the past have attempted to show that these cells migrate

from the terminal bronchiole into the alveolus, and this explanation seems to be the consensus at this time. The cells vary greatly. They can be low columnar, cuboidal to tall columnar with low lying nuclei and eosinophilic cytoplasm (Fig. 3). This

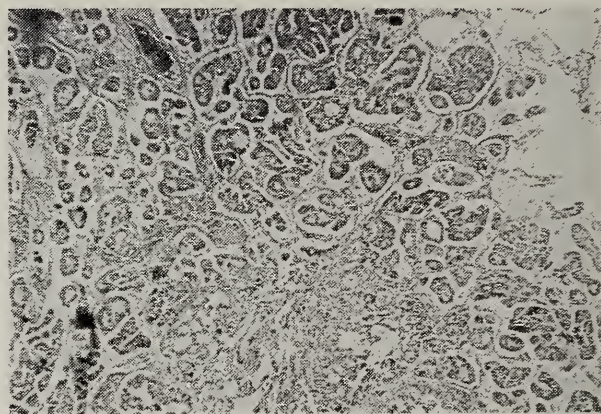


FIG. 3 Photomicrograph of a pulmonary tumor nodule showing preservation of the background stroma.

tumor has a great propensity for papillary growth into the alveoli, and the cells seem to have very little cohesion. There is, therefore, a great exfoliative tendency resulting in a high percentage of positive cytology smears. This leads to another prominent characteristic of this tumor—the intrabronchial spread or aeroembolism, which is postulated as one of the main mechanisms in the spread of this tumor. In summary, these tumors make up a small percentage of malignant tumors of the lung. They occur in equal frequency in males and females as contrasted to bronchogenic carcinoma. All ages from 16 to 89 have been reported, but the most common age is in the 50's. The real problem in this whole disease picture is the insidious nonspecific type of onset. There is usually no ulceration of a bronchus or obstruction, either of which would give an early indication of the disease. The early symptoms are nonspecific, as stated—cough, excess sputum and dyspnea. In later stages there may be symptoms which point directly at the lung itself, such as clubbing of the fingers, shortness of breath, cor pulmonale, etc. Textbook descriptions of x-ray findings in the tumors have probably been a barrier to early diagnosis. We have today a so-called typical case of diffuse nodular densities.

However, Storey¹, in 1953, summarized all cases up until that time. He described all the x-ray patterns seen. The most common pattern was that of a solitary nodule, as Dr. Eastridge mentioned, and this needs to be emphasized. Twenty-six percent of those in his series showed an initial solitary nodule, whereas bilateral diffuse infiltrate made up only 20%.

Let me mention, in closing, some areas of controversy about this tumor. First, there is the question of origin. I think in the past, because most material was from autopsies, there was a tendency to call this alveolar cell carcinoma. In advanced cases, the alveoli were markedly filled and lined by tumor, whereas with earlier diagnosis in the living patient, the probability of bronchiolar origin seems more apparent. The debate revolves around the question of whether the adult alveolus has an epithelial lining. Most writers today feel that it does not, but that it has a potential to develop epithelium. Another question concerns whether the tumor is multicentric or unicentric in origin. This question is basic to the treatment of the disease. Does it arise from multiple areas which would in itself make present treatment theoretically hopeless, or does it arise from an area which, if re-

moved, could result in cure? Once again, I think the consensus is that many are unicentric. Everyone is not completely satisfied with the evidence for this answer, but it seems to be more likely in view of 10 year survivals in several cases in the recent literature. Hewlett and associates² reported a compilation of cases from military hospitals giving a more optimistic outlook on this disease. They had 28 patients treated by resection. There were 2 early postoperative deaths, and of the remaining 26 patients, 23 have survived. There are 3 ten-year survivals. This disease has often been viewed as uniformly hopeless in the past. An improved ability to diagnose this tumor, safer operative procedures, and a more aggressive attitude account for longer survivals. Cytology is responsible for a large part of our improved diagnostic ability.

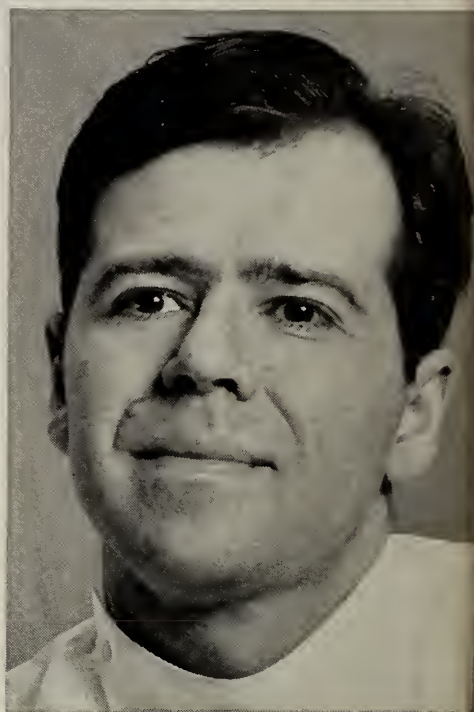
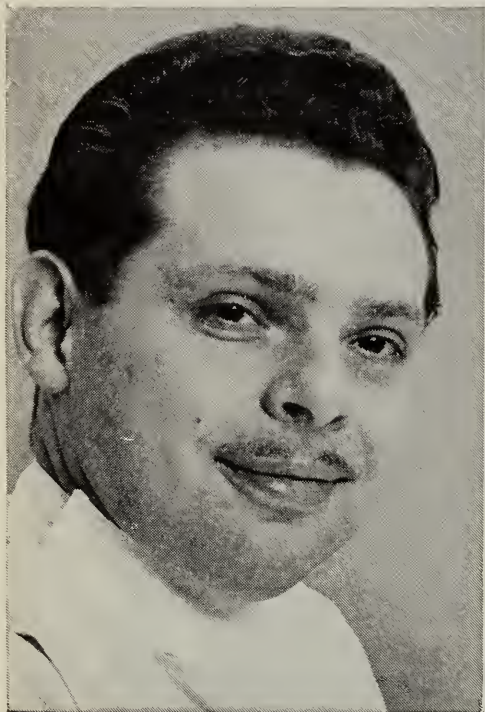
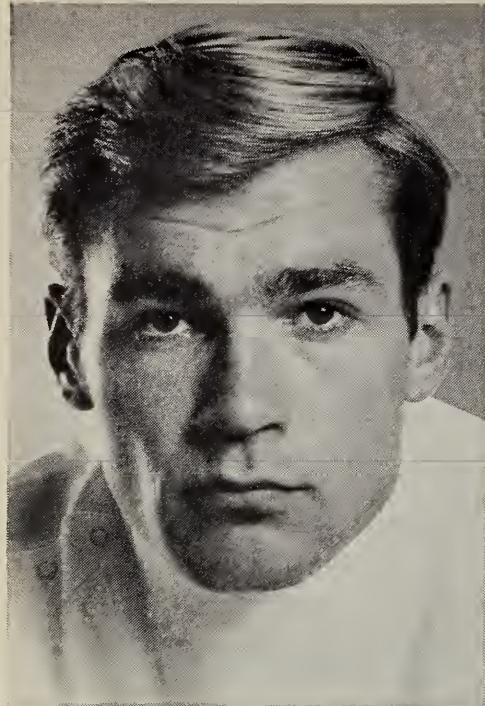
Final Anatomic Diagnoses: Bronchiolar carcinoma with metastases to lymph nodes, liver and adrenals.

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1. Storey, C. F., Knuttson, K. P., and Lawrence, B. J.: Bronchiolar (Alveolar Cell) Carcinoma of the Lung, *J. Thorac Cardio Surg* 26: 331, 1953.
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"All Interns are Alike"

It stands to reason. They all go through the same training; they all have to pass the same tests; they all have to measure up to the same standards; they all are underpaid, too. Therefore, all interns are alike.

That's utter nonsense, of course. But it's no more nonsensical than what some people say about aspirin. Namely: since all aspirin is at least supposed to come up to certain required standards, then all aspirin tablets must be alike.

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So next time you hear someone say that all aspirin tablets are alike, you can say, with confidence, that it just isn't so.

You might also say that all interns aren't alike, either.



MEDICAL DIGEST

News of Interest to Doctors in Tennessee

HIGHLIGHTS OF BOARD OF TRUSTEES MEETING JANUARY 10-11, 1970

JANUARY TRUSTEES MEETING COVERS TWO DAYS . . . The Board of Trustees conducted its First Quarter meeting of 1970 in Nashville on January 10-11, and acted in keeping with the TMA By-Laws which require the Board to appoint a Nominating Committee from among the certified and ex-officio delegates to the House . . . Those named to the Nominating Committee were: EAST TENNESSEE: E. Kent Carter, M.D., Kingsport; John H. Burkhart, M.D., Knoxville; David P. McCallie, M.D., Chattanooga . . . MIDDLE TENNESSEE: William H. Edwards, M.D., Nashville; William A. Hensley, Jr., M.D., Cookeville; Joseph L. Willoughby, M.D., Franklin . . . WEST TENNESSEE: Laurence W. Jones, M.D., Union City; C. D. Hawkes, M.D., Memphis; Thomas K. Ballard, M.D., Jackson.

* * * * *

MAJOR ACTIONS . . . The Board considered and took action on 27 items during the two day session . . . Business included appointing the Board of Directors of IMPACT (Independent Medicine's Political Action Committee-Tennessee); nominating the Directors for the TMA Student Education Fund Board . . . And considered recipients for the Distinguished Service Award to be presented at the Annual Meeting . . . Appointments were made to the Standing and Special Committees of the Association which will become effective following the Annual Meeting in April . . . The Board also received and evaluated reports from division coordinators on activities of committees during the Fourth Quarter of 1969 . . . Appointed an Ad Hoc Committee of the Board to study Malpractice. The directive to the committee was that an in depth study be made of the possibilities of appropriate legislation, insurance, and pre-trial panels. The purpose of the committee will also be to evaluate all methods to see if any relief can be realized in stabilizing liability and malpractice costs.

* * * * *

TMA TRUSTEES SUBMIT NUMEROUS AMENDMENTS AND RESOLUTIONS TO THE HOUSE . . . As a result of a year long study by the Board's Committee on Planning and Development, numerous amendments to the Constitution and By-Laws were approved, and will be introduced to update the Constitution and By-Laws for more effective administration of TMA . . . Resolutions to be submitted by the Board to the House include a utilization review mechanism that will establish a state level peer review committee and similar committees in each of the county medical societies of the state. Such committees could work with hospital utilization committees and as primary investigating boards for problems of over-utilization, over-charging or over-servicing outside of hospitals . . . A resolution on Blue Shield Plans that would call for the Tennessee Medical Association to be the designating body on approval for Blue Shield Plans on the state level.

AMA LONG-RANGE PLANNING REPORT . . . The AMA Planning and Development Committee report received by the AMA Board of Trustees was a lengthy report under study by the AMA House of Delegates . . . It has been recommended that this report be distributed to all state and county medical societies, and officers and members of the House of Delegates of the various state associations. The Board recommended that this report be distributed and consideration be given to the recommendations included.

* * * * *

HANDBOOK ON POLICIES FOR TMA EMPLOYEES . . . The Board received and acted upon an Employee Handbook on personnel policies for association employees. After careful study and evaluation, the Board approved the contents of the Handbook.

* * * * *

OTHER BOARD ACTIONS . . . Numerous other items were acted upon by the Board, including a report of the Building Committee on the status and plans for the TMA headquarters expansion . . . Explored the possibility of retaining an attorney lobbyist for the General Assembly, but decided not to do so at the January-February legislative session . . . Heard a report from the Executive Director on the appointments to AMA Boards and Councils that included Tennessee physicians . . . Reappointed Mr. Charles L. Cornelius, Jr., as Attorney for TMA for 1970 . . . Heard a report from the Executive Director on final annual meeting arrangements . . . Designated a physician and staff member to attend the AMA Regional Conference on Quackery held in Atlanta . . . Designated persons to attend AMA-AMPAC Workshop . . . Approved the financial audit of 1969 covering TMA's fiscal operations, and referred to the Legislative Committee the matter of post mortem examinations . . . Received a report from TMA attorney on the Henry County case. The report included the petition for Writ of Certiorari to the Supreme Court where such was appealed by an osteopath in Henry County . . . Received and accepted a report on the Conference on Nutrition from Dr. R. H. Kampmeier . . . Accepted a report on Continuing Education from the chairman, Dr. R. H. Kampmeier, which covered the status of TMA's program on Continuing Education. The chairman was commended by the Board for this activity.

* * * * *

TMA ORGANIZES PLAN TO REBUT ERRONEOUS NEWS STATEMENTS . . . The Board of Trustees has designated the President, President-Elect and Chairman of the Board of Trustees, as three official spokesmen for the Association to rebut statements that may be erroneous or damaging to physicians, when attacks through the news media are made upon them. Much publicity has emanated from the hearings of the Senate Finance Committee that involves doctors. News releases and statements are being furnished to daily newspapers and television stations across the state, and the TMA's spokesmen are available for comment day or night.

* * * * *

OPERATION GRASS ROOTS . . . Has gotten under way with a mailing of the kits by AMA to state associations, county societies and medical specialty societies. The campaign is designed to place the problem of Medicare and Medicaid in proper perspective before the public. The kit contains detailed suggestions and materials for action at the county society level.

* * * * *

NEWS BRIEFS . . . U.S. Department of Labor extended effective date of changes in overtime pay provisions for professional, administrative and executive personnel from February 21 to March 15. Salary level at which employees become exempt from overtime pay will be upped from \$115 to \$130 a week for professional employees, from \$100 to \$115 for administrative and executive personnel.

Public Service

Communications Legislation

Hadley Williams, Public Service Director

GENERAL ASSEMBLY ADJOURNS . . . The 86th Tennessee General Assembly adjourned February 20th after utilizing only 24 of the 45 legislative days available to them. The short but active session saw more than 800 new pieces of legislation introduced bringing the total number of introductions to more than 2,000 for the two-year period. Approximately 75 individual bills were related to health care.

* * * * *

PROFESSIONAL CORPORATION LAW ENACTED . . . Of particular interest to physicians was the adoption of a Professional Corporation Act by the Tennessee General Assembly. This new Law allows a person or group of persons licensed to practice a profession in Tennessee to organize a professional corporation under the Tennessee General Corporation Act and permits existing professional corporations or associations to elect to be governed by its provisions by amending its charter or articles of incorporation. The new Law makes it possible for professional people to enjoy the full advantage of incorporation under an up-to-date corporation law. Physicians interested in forming a professional corporation will want their legal counsel to investigate the provisions of this new Tennessee Law.

* * * * *

CHIROPRACTORS LEGISLATIVE EFFORTS STYMIED . . . Legislation to equate chiropractors and podiatrists with physicians failed to see final action and died in the Senate Commerce Committee. The bill would have required recognition and reimbursement of chiropractors under all Government health care programs, and would have required all health insurance contracts written in Tennessee to provide for reimbursement of chiropractic services. Nineteen states have enacted such legislation. Representative Elbert Gill of Memphis, a chiropractor, led a determined but fruitless fight to have Tennessee become the 20th State.

* * * * *

BASIC SCIENCE LAW AMENDED . . . An amendment to the Tennessee Basic Science Law was adopted which will allow graduates of foreign medical schools, who are citizens of the United States, to gain a Basic Science certificate through reciprocity. Non-citizen graduates may be licensed in Tennessee but must successfully pass the Tennessee Basic Science examination.

* * * * *

FIRST AID STATION WELL RECEIVED AND UTILIZED . . . The TMA Capitol First Aid Station, co-sponsored with the Tennessee Hospital Association, was again provided for members and employees of the 86th General Assembly. Physician volunteers from across the state staffed the facility which recorded a total of 249 visits made to the station during the session.

MEDICARE CLAIMS CAN BE SPEEDED . . . The Travelers Insurance Company reminds that Medicare claims for beneficiaries of Railroad Retirement should be sent directly to Travelers and not Equitable, the fiscal intermediary for all other Medicare claims. Claims sent directly to one of the Travelers offices in Memphis, Nashville, Knoxville and Chattanooga, will receive immediate attention. Claims for Railroad Retirement recipients sent to Equitable will face an unavoidable delay. Physicians should instruct office personnel to be on the alert for these claims and to submit them directly to Travelers which will aid both carriers and speed reimbursement.

* * * * *

NIXON ADMINISTRATION WANTS RMP AND CHP COMBINED . . . Legislation to combine the Regional Medical Programs with Comprehensive Health Planning and Public Health Services programs has been introduced by Senator Javits (R-NY) as S.3443. Also to be combined would be the National Center for Health Services, Research and Development. The bill would place all three programs under a single title in the Public Health Services Act, giving them a common statement of purpose, a single National Advisory Council and a single Annual Report on their "progress toward a health care system."

* * * * *

CHIROPRACTORS WORKING HARD IN CONGRESS . . . More than 90 separate bills have been introduced in Congress to permit chiropractic coverage under Medicare. Most have been referred to the House Ways and Means Committee which will ultimately determine their fate. AMA and state associations along with other National groups and organizations are vigorously opposing the legislation.

* * * * *

AFL-CIO ISSUES STATEMENT OPPOSING CHIROPRACTIC INCLUSION . . . The AFL-CIO Executive Council made public a statement adopted February 20th opposing the inclusion of chiropractic services under Medicare. They said: "Of equal importance to holding down costs is the maintenance of quality of care in the Medicare program. Of immediate concern is the threat to quality care represented by the drive to include less than fully qualified medical practitioners such as chiropractors in the Medicare program. At stake is the direct access to the billions of dollars for health care being provided the elderly by the Medicare program. Medicare should not become a vehicle for exploitation of the health needs of the elderly. The AFL-CIO opposes any change in the Medicare law which would open up the program to unqualified practitioners."

* * * * *

THE DIFFERENCE BETWEEN THE HEALING ARTS AND THE CULTS . . . The Journal of the Medical Association of Alabama said recently that the difference between the Healing Arts and the Cults is:

The difference between today and yesterday.
The difference between Astronomy and Astrology.
The difference between the Laboratory and the Crystal Ball.
The difference between Psychiatric Treatment and Bedlam.
The difference between Research and Prophecy.
The difference between Knowledge and Superstition.
The difference between an earned degree and an "honorary" degree.
The difference between Medicine and Chiropractic.

President's Page



FRANCIS H. COLE

This is my last effort at a President's page, and reflections are inevitable as the term of office draws to an end. It has been a vigorous and demanding year for the medical profession in general and for Tennessee medicine in particular, as we struggled through the introduction of Medicaid, and as we contended with a General Assembly which seemed intent on venting all its frustrations against physicians. The worst seems to be over in those two matters, but there is every indication that other problems as difficult will confront us in the future. I suspect that each succeeding year will be more difficult, and I solicit for my successors the understanding and support of the members of the Association.

We can be proud of Tennessee physicians. Despite fundamental philosophical objections to the Medicaid program and irritation at the administrative procedures imposed, there was tangible proof that patients were seen, and medicines prescribed. This evidence of concern for the indigent ill was a fundamental factor in the decision by the State Administration to increase the level of physician payments.

As we look somewhat fearfully to the future, we must be vigilant in defense of professional independence and personal freedom. A satisfied patient is the best friend a physician can have, and an adequate system of health care services is the best defense against regimentation and Federalization of medicine. Self discipline is mandatory, continuing education is indispensable, and personal and professional integrity in dealing with the financial aspects of medical service is an obligation to ourselves and our profession.

Please accept my gratitude for the honor to serve as President of the Tennessee Medical Association. I solicit your support for our new President, Doctor Tom Nesbitt, in whose capable hands I am happy to entrust our affairs.

Sincerely,

Francis H. Cole M.D.

President

THE NEW PRESIDENT



TOM E. NESBITT, M.D.

NASHVILLE

TOM E. NESBITT, M.D.

82nd President—Tennessee Medical Association

MEMBERS OF the Association who have worked with the new President can be assured of his leadership, sincerity and dedication. He is capable of meeting the challenges of his office, which have grown more strenuous and time consuming during the past year.

On April 10, 1970, during the annual meeting in Memphis, Dr. Nesbitt took office as the 82nd President of the Tennessee Medical Association. He has been in the practice of urology in Nashville since July, 1957. Born April 14, 1923 in Mangum, Oklahoma, he lived principally in Tulsa, Oklahoma, and attended the University of Tulsa and Louisiana State University before receiving his M.D. degree at Southwestern of the University of Texas, Dallas in 1948. Graduate education followed at the University Hospital in Ann Arbor, Michigan, where his internship, surgical residency and urological residency were served. In June, 1954, he also received an M.S. degree in surgery from the University of Michigan.

Dr. Nesbitt's professional activities have included academic appointments as Instructor of Urology, University of Michigan; Associate Professor of Urology, Marquette University, Milwaukee; Assistant Clinical Professor of Surgery (Urology), Vanderbilt University; and Clinical Associate Professor of Urology, Meharry Medical College.

His medical organization memberships include local, state and AMA memberships; American College of Surgeons; American Board of Urology; American Urological Association; Society of Pediatric Urology and Southern Medical Association.

He served as Secretary-Treasurer and member of the Board of Directors of the Nashville Academy of Medicine; former chairman of the Speaker's Bureau, Program Committee and Mediation Committee of the Nashville Academy. His TMA activities have included Vice-Speaker and subsequently Speaker of the House of Delegates; chairman of the Legislative Committee and current chairman of the Governmental Medical Services Committee. Dr. Nesbitt also serves as a Delegate to the AMA House of Delegates.

In civic activities, he serves the State of Tennessee on the Medical Advisory Committee for Title XIX and on the Advisory Group of the Tennessee Mid-South RMP. A member of the First Presbyterian Church in Nashville, he has served as Chairman of the Board of Deacons and is currently an active Elder in the Church. In addition, he represents the Nashville Presbytery as a representative to the Board of Directors of Park Manor Presbyterian Apartments.

During World War II, Dr. Nesbitt was in the U.S. Army and later served in the U.S.A.F. Medical Corps as a medical officer with the rank of Captain at the time of discharge. In addition to these activities, he has found time to author approximately twenty scientific publications.

Dr. Nesbitt was married on June 25, 1949 to the former Elizabeth Nathan of Sheffield, Alabama, and they have four children, Tom, Jr., 17, Missy, 16, Jon, 14 and Betsy, 13.

The Tennessee Medical Association possesses in its new President a man of skill and courage, vast experience and foresight. He has fought against political medicine and has worked unceasingly for the benefit of his patients and the profession of which he is a member. He is dedicated to the ideas of medicine and has the ability to cope with the difficult issues with which medicine is faced.

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MAY 27, 28, 29, 1970

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MAY 27, 28, 29, 1970

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Devoted to the Interests of the Medical Profession of
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APRIL, 1970

EDITORIALS

DRUG ABUSE IN PHYSICIANS

High on the list of health priorities in this country is the problem of drug abuse and much has been written about the excessive use of not only marijuana, LSD and heroin, but also about sedatives, tranquilizers and mood elevators. Many communities look to physicians for guidance and assistance in helping to solve the problem of drug abuse and many conscientious physicians are spending much time and effort in fulfilling this community responsibility. It is, therefore, disturbing to read the recent report of George Vaillant and his group¹ reporting on physicians' use of mood-altering drugs.

In a previous study of psychiatric admissions of physicians to Mayo Clinic, Duffy and Litin² noted that 50% showed dependence on either alcohol or mood-altering drugs and 32% dependence on both. In a study³ of 66 physicians seen as psychiatric outpatients, almost a third received a primary diagnosis of either alcoholism or dependence on mood-altering drugs.

There is also good evidence that in physicians in general, not just those who seek psychiatric help, narcotic abuse is more frequent than in the population at large. In 1958 the California State Board of Medical Examiners estimated that at some point in their careers 1 to 2% of doctors in that state abuse narcotics. In a 25 year period, 0.5% of all physicians licensed in New York State were reported to the Bureau of Narcotic Control as addicts. By contrast, the prevalence of narcotic addiction among American males in the group from 20 to 50 years of age is around one in 1000 and most come from urban slums.

Since most physicians are neither narcotic addicts nor admitted to psychiatric hospitals, the existing literature fails to answer two important questions. In comparison to non-physicians, do physicians tend to overuse drugs? If they do overuse the drugs to which they have easy access, do they use alcohol and tobacco correspondingly less? Since physicians form a group selected by both demonstrated intellectual proficiency and occupational perseverance, their use of drugs and alcohol ought to be compared with that of a nonmedical group that shows these characteristics. Finally, to obtain an accurate picture of drug abuse, subjects must be studied over long periods.

The study of Vaillant and his co-workers fulfills both of these criteria. It is a prospective study of the use of mood-altering drugs, alcohol and tobacco in a sample of physicians selected because of freedom from physical, emotional and academic difficulties 30 years previously and followed to the present. Drug use by these physicians is contrasted with that of an intellectually and socially comparable control group.

Although the use of alcohol and tobacco was no more prevalent in the physician group, the use of sedatives, tranquilizers and amphetamines was significantly greater when compared with the non-medical group. There were 45 physicians in this study of a group of men selected for excellent psychologic and physical health 30 years previously. It is significant that at some point in their careers, three doctors were occupationally incapacitated by their use of alcohol or drugs. It is also of interest

that the increased use of mood-altering drugs is accompanied by a use of alcohol and some form of tobacco that is at least comparable to men in business, in which heavy social drinking may be an asset and smoking a less conscious danger.

To mitigate the occupational hazards of drug use in physicians several positive steps can be taken. The physicians of doctors should recognize, first of all, that their patient's tendency to deny illness will make a diagnosis difficult; secondly, the patient's virtue of not troubling his doctor may lead to the wish to self-prescribe; and, thirdly, the patient's willingness to care selflessly for others may conceal a greater than average need to be given to. The physicians of doctors should be alert to depression in their patients and must inquire directly about self-medication.

We must have a clean house ourselves before we attempt to help others clean theirs. It is mandatory that medical societies recognize the problem of drug abuse by some of its members. Man is weaker than he wishes to think himself; even the professional man who knows about the effects of the drugs can delude himself into thinking that for him they are not dangerous. Only when organized medicine recognizes this fallacy will it be adequately prepared to help others cure this cancer on our American scene.

A.B.S.

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AMERICAN BOARD OF FAMILY PRACTICE

After years of planning and hopes, the American Board of Family Practice has become a reality.

On February 28 and March 1, 2000 family doctors met the challenge of taking written examinations to qualify for certification. These 2000 who took the examination given simultaneously at 36 centers in the country, are those who have practiced at least six

years as a family practitioner, or have had a residency in some specialty but desire to practice as a family physician. All needed to have completed 300 hours of accredited continuing education.

After the first decade, candidates for this Board will need to have completed specialty training in an approved residency program. The development of a sufficient number of such training programs is a need which hopefully will be met in the next few years.

The American Academy of General Practice had the vision to require 150 hours of accredited continuing education every 3 years to maintain membership in the organization. This vision continues, in that this new Board was so established as to require the demonstration of ongoing competence. Those to be certified have agreed to *recertification* after six years. This may set a pattern to meet the threats of licensure or recertification to continue in the practice of medicine.

In this issue Dr. Trabue has pointed up the medical manpower shortage especially in the more rural areas. Wilson¹ in commenting upon the new Board and its activities, wrote "with much greater numbers of these primary-care men expected to emerge in the reasonable future, there is reason to suspect that the current serious shortage of physicians in sparsely populated areas will begin to take care of itself." This is everyone's fervent hope!

And yet,

"A young and energetic man who has spent six years in obtaining a University education, and four more in the study of medicine as it ought to be studied, that is to say, in preparing himself to study and investigate for the rest of his life, will not settle in certain districts. He has invested ten years' labour, and from five to ten thousand dollars, and a locality . . . will not be satisfactory, in part because the capital should bring a better interest, in part because he will have acquired tastes which will make his life unpleasant in such places. Yet these places must have physicians of some sort, and it is not clear as to how they are to be supplied, if some of the universal and extensive reforms in medical education which have been proposed were to be enforced."²

Does this have a familiar ring? It was written almost a century ago.

One can always hope!

R. H. K.

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2. Billings, John S.: A Century of American Medicine, Vol. 72:439, 1876.

IN MEMORIAM

Hillman, John William, Nashville. Died March 6, 1970, Age 49. Graduate of Johns Hopkins University, 1945. Member of Nashville Academy of Medicine.

Shipley, D. R., Clarksville. Died February 19, 1970, Age 38. Graduate of University of Tennessee Medical School, 1957. Member of Montgomery County Medical Society.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES



New Members

The Journal takes the opportunity to welcome these new Tennessee Medical Association Members.

CUMBERLAND COUNTY MEDICAL SOCIETY

M. B. McKinney, M.D., Crossville

NASHVILLE ACADEMY OF MEDICINE

Elizabeth Backus, M.D., Nashville

Leon Cochran, M.D., Madison

William L. Glover, M.D., Old Hickory

Marcelle R. Hamberg, M.D., Nashville

F. Hayden Lambert, M.D., Nashville

John R. Nelson, M.D., Nashville

Robert H. Shipp, M.D., Madison

Paul E. Slaton, Jr., M.D., Nashville

ROANE-ANDERSON COUNTY MEDICAL SOCIETY

Joan Woods, M.D., Oak Ridge

Samuel J. Pieper, M.D., Oak Ridge

Thomas J. Grause, M.D., Oak Ridge

SHELBY COUNTY MEDICAL SOCIETY

Lawrence G. Gardner, Jr., M.D., Memphis

James Butler Green, M.D., Memphis

David Holloway, M.D., Memphis

Tandy Graves Morris, M.D., Memphis

Morris W. Ray, M.D., Memphis

Knoxville Academy of Medicine

The March meeting of the Knoxville Academy of Medicine featured a talk on "Advances in Drug Therapy of Hypertension" by Dr. Shakill Mohammed, Associate Professor of Pharmacology and Medicine at the University of Cincinnati. Also, Dr. Alfred Beasley, Chief of Medicine at the University of Tennessee Research Center and Hospital, presented a case report entitled "An Unusual Case of Hypertension."

At its February meeting, the Academy voted to endorse and support efforts to develop a firm Air Pollution Control Division in Knox County. It was also agreed to aid the Academy's Ladies Auxiliary and the local Law Enforcement Agencies' efforts in presenting programs to school children concerning drug abuse. Reports of plans to staff the upcoming Rubella city-wide vaccination program were also heard.

NATIONAL NEWS

The Month In Washington
(From Washington Office, AMA)

The Nixon Administration called for limitations on medicare and medicaid reimbursements to physicians and hospitals.

Health, Education and Welfare Under Secretary John G. Veneman told the Senate Finance Committee that, because of rising costs, "it is now time to make some fundamental changes in the law which governs medicare and medicaid reimbursements." He said the reasonable cost and reasonable charge criteria in the medicare law had not provided opportunity for major cost-control efforts.

"We need an incentive system of institutional reimbursement and we need changes in the law that will help control the increases in the amount that the medicare program will recognize in the charges of individual practitioners. . . .

"I believe . . . that the law should be changed so as to limit further the rate at which increases in physicians fees would be recognized by medicare. The basic difficulty at present is that despite the improvements which have been made in applying reason-

for the problem drinker



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Riboflavin	15 mg
Pyridoxine HCl	5 mg
Niacinamide	100 mg
Calcium pantothenate	20 mg
Cyanocobalamin	5 mcg
Folic acid	0.5 mg
Ascorbic acid	500 mg

Usual dosage is one tablet b.i.d.

Indications: Nutritional supplementation in conditions in which water-soluble vitamins are required prophylactically or therapeutically.

Warning: Not intended for treatment of pernicious anemia or other primary or secondary anemias. Neurologic involvement may develop or progress, despite temporary remission of anemia, in patients with pernicious anemia who receive more than 0.1 mg of folic acid per day and who are inadequately treated with vitamin B₁₂.

Dosage: 1 or 2 tablets daily, as indicated by clinical need.
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able charge guidelines, the best that can be done under present law is to introduce a lag in the recognition of fee increases . . .

"Customary and prevailing charges under the program and the fees recognized by the carriers under comparable circumstances in their own business reflect, in the long run and after a suitable lag in recognition of fee increases, whatever physicians choose to charge the public generally in a market where growing demand is pressing increasingly on the limited supply of health personnel.

"Reliance on Blue Shield fee schedules as the limiting factor in medicare reimbursement, as suggested in the Senate Finance Committee staff report, however, would not seem to us to have long-run viability. Tying payments under a program as large as medicare to Blue Shield schedules would surely exert a major upward pressure on those schedules . . .

"We believe that it is necessary to move in the direction of an approach to reasonable charge reimbursement that ties recognition of fee increases to an index.

"Under such an approach, allowable charges recognized for medicare would next year be generally limited to either presently recognized charges or to a new prevailing level set at the 75th percentile of 1969 average customary charges for a given service in an area. In the future the prevailing charge screen would move upward only in proportion to increases in an index made up of pertinent portions of wage and price indices. Under such an approach, recognition of fee increases would continue, but only in relation to things that are happening in other parts of the economy and that have a bearing on the physician's cost of doing business."

The American Medical Association said that any proposal for further limitations on physicians' fees under the government programs would be unwise.

"For all practical purposes, a freeze on physicians' fees under the two federal programs has been in effect for more than a year and has proven to be ineffective," Gerald D. Dorman, M.D., AMA President, said. "The costs of the program have con-

tinued to rise in spite of the freeze.

"Physicians are disturbed by threats of additional federal controls.

"Burdening these busy doctors with more red tape and restricting payments to unrealistically low levels may drive them away from participating in Medicare and Medicaid. Then the government will have discriminated against many people who need medical care . . .

"The national interests would be better served if everyone joined with the American Medical Association in its efforts to provide more physicians."

* * *

The National Society for Medical Research said that no valid finding on the effects of marijuana can be expected for another two to seven years.

Science Research Society said part of the difficulty is there is no standard yardstick for evaluating marijuana in scientific studies. The basic weed from which marijuana is made can vary from plant to plant and from country to country, the group said.

But the Society cautioned in a statement: "Until scientifically proven results are obtained, it appears as foolhardy to smoke marijuana as it would be to take any other unknown drug or chemical agent just for kicks."

The Society said two projects are now going on in an effort to achieve scientific standardization in marijuana studies.

* * *

The federal government has negotiated new agreements with France and Turkey aimed at stemming the flow of heroin into this country.

But, in announcing the agreements, John E. Ingersoll, director of the Bureau of Narcotics and Dangerous Drugs, said the government's long-range objective in dealing with the problem is "to induce the medical community to find adequate substitutes" for opium, from which heroin is derived.

Ingersoll admitted the U. S. was asking a great deal of Turkey where opium has been grown for centuries.

"But when you've got over 900 deaths last year from heroin, 224 of them teenagers, in one city, I think you've got a right to

start hollering," he said. "There have been three deaths a day for heroin in New City this year. It is the major cause of death for 18 to 35-year-olds in New York City."

Ingersoll estimated 80 per cent of the 2.5 to 3 tons of heroin smuggled into the U.S. annually comes from the poppy fields of Turkey via the clandestine laboratories of France where the opium is refined into heroin.

The agreement with Turkey includes a \$3 million loan approved by the agency for international development in 1968. The money is to be used partly to help the Turks substitute crops like sugar beets and sorghum for opium and partly to equip and train a 460-man narcotics police force.

The U. S. agreement with France calls for frequent exchange of meetings in Washington, D.C. and in Paris to exchange information on such matters as the known drug traffickers and trafficking routes.

France also has assigned a force of 300 police to fight narcotics internally and 30 police to combat it at the international level. Ingersoll's narcotics bureau will increase its manpower in France next year and also will engage in a crosstraining program with French police.

* * *

Congress finally approved an appropriation bill acceptable to President Nixon to provide funds for the Health, Education and Welfare and the Labor departments for the 1970 fiscal year which began last July 1.

The two departments operated under stopgap Congressional resolutions while Nixon and Congress battled over how much money the bill should provide. The President vetoed the first bill passed by Congress on the ground that it would be inflationary because it exceeded his budget by \$1.2 billion. Congress sustained the veto but still refused to go all the way with Nixon in cutting funds for the two departments. The second bill totaled \$19.4 billion, \$680 million more than the President requested. But Nixon accepted the compromise amount when Congress added a provision authorizing him to withhold two per cent of the funds.

The second bill had \$176 million in Hill-

Burton hospital funds, compared with \$258 million in the vetoed measure. The appropriation for health facilities, educational research and libraries was cut from \$149 million to \$126 million.

Health manpower direct loan funds remained the same, \$234.5 million, but an administration spokesman said it was planned to withhold \$15.5 million. Other announced plans to withhold funds in the health field included:

- \$6 million from \$108.8 million for air pollution control;

- \$6.3 million from \$35.5 million for construction of community mental health centers;

- \$6.3 million from \$360.3 million for mental health programs;

- \$8.7 million from \$146.3 million for the National Institute of Arthritis and Metabolic Diseases;

- \$5.7 million from \$107 million for the National Institute of Neurological Diseases and Stroke;

- \$1.3 million from \$103.7 million for the National Institute of Allergies and Infectious Diseases;

- \$10.3 million from \$164.6 million for the National Institute of General Medical Sciences;

- \$7 million from \$76.6 million for general research and services.

* * *

The Food and Drug Administration announced plans to require that a warning leaflet be included in every package of birth control pills.

"I have come to the conclusion that the information being supplied to the patients in the case of the oral contraceptive is insufficient and that re-evaluation of our present policies is in order," FDA Commissioner Charles C. Edwards, M.D., told the Senate Monopoly Subcommittee at one of its public hearings on side-effects of birth control pills.

A proposed draft of the warning leaflet states that "there is a definite association between blood-clotting disorders and the use of oral contraceptive."

It emphasizes the importance of reporting any side-effects to "your doctor."

"All of the oral contraceptive pills are highly effective for preventing pregnancy,

when taken according to the approved directions," the proposed draft says. "Your doctor has taken your medical history and has given you a careful physical examination. He has discussed with you the risks of oral contraceptives and has decided that you can take this drug safely.

"This leaflet is your reminder of what your doctor has told you. Keep it handy and talk to him if you are experiencing any of the conditions you find described . . .

"Besides women who have or who have had blood clots, other women who should not use oral contraceptives are those who have serious liver disease, cancer of the breast or certain other cancers and vaginal bleeding of unknown cause.

"If you have heart of kidney disease, asthma, high blood pressure, diabetes, epilepsy, fibroids of the uterus, migraine headaches, or if you have any problems with mental depression, your doctor has indicated you need special supervision while taking oral contraceptives.

"Even if you don't have special problems, he will want to see you regularly to check your blood pressure, examine your breasts and make certain other tests."

An American Medical Association spokesman questioned the tone of the language of the FDA's draft of the leaflet.

"In general, it is a good idea to have a package insert but the text of the FDA proposal raises serious question about the relationship between doctor and patient," he said. "It puts the full responsibility on the physician, but oral contraceptives generally are prescribed more as a convenience to a patient than as a medication. The patient must share responsibility both morally and legally and be alerted to her own responsibility."

The FDA now requires that pharmaceutical manufacturers only warn physicians and pharmacists of side-effects and possible hazards of taking birth control pills. Makers of the drugs were given opportunity to comment on the proposed leaflet after its publication in the Federal Register.

* * *

Identical bills designed to increase the number of physicians and allied health personnel in family medicine have been in-

troduced in the House and Senate. Sponsors of the legislation say that prospects are good for Congressional approval this year.

The legislation would authorize \$50 million for the current fiscal year of 1971, \$75 million for fiscal 1972 and \$100 million for each of the next fiscal years for grants to medical schools and hospitals. The grants would be to help medical schools and hospitals establish departments and programs in family practice of medicine and to encourage the training of allied health personnel in that field of medicine.

Sen. Ralph W. Yarborough (D.-Tex.) sponsored the legislation (S. 3418) in the Senate. Thirty-one other senators, both Democrats and Republicans, were co-signers of the bill. Yarborough is chairman of both the Senate Labor and Public Welfare Committee and the Subcommittee on Health which will handle the legislation. An aide said the senator would schedule hearings and that he was confident the Senate would approve the legislation this year.

Rep. Fred B. Rooney (D.-Pa.) introduced the bill (H. R. 15793) in the House first this year. Rooney is a member of the House Interstate and Foreign Commerce Committee which will handle the legislation on that side of the capitol. Several other House members also introduced it separately.

Aides to both Yarborough and Rooney said they had worked with representatives of the American Academy of General Practice in drafting the legislation.

MEDICAL NEWS IN TENNESSEE

Dr. Ingram Will Not Seek Re-Election

Dr. Alvin J. Ingram, Memphis, has announced that he will not seek re-election to the American Medical Association Board of Trustees due to the press of professional and personal business.

Dr. Ingram was elected to the Board of Trustees in 1964. He was born in 1914 and received an M.D. from the University of Tennessee in 1939. He served an internship and residency at the University of Michigan Hospital in Ann Arbor. In 1941 he began a

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Fellowship in Orthopaedic Surgery at the Willis C. Campbell Clinic in Memphis. After service in the U. S. Army during World War II, he joined the staff of the clinic in 1947. He was recently chosen Chief of Staff of the seventeen man clinic.

He is also an Associate Professor of Orthopaedics at the University of Tennessee and Chief of Staff of the Crippled Children's Hospital in Memphis. In addition, he is a member of the local, state, national and international Orthopaedic Society.

At the American Medical Association, he has served as a member of the National Speakers Bureau since 1961. As an AMA Delegate, he served on several reference committees and was a member of the Gunderson Committee to review the House of Delegates. He has also served as Secretary-Treasurer of the AMA.

Governor's Conference on Drugs Held in Nashville

The first Governor's Conference on Drugs was held March 10 and 11 at the War Memorial Auditorium in Nashville. The conference was designed to provide orientation as to the nature of drug abuse and addiction, to identify the scope of the problem, to stimulate major community and citizen involvement in a program of prevention and control, and to set guidelines for development of such program.

Eminent speakers from Tennessee and across the Nation included Dr. Sidney Cohen, Director of the Division of Narcotic Addiction and Drug Abuse of the National Institute of Mental Health; Dr. Joel Fort of Berkeley, California, author of "The Pleasure Seekers" and a specialist in narcotic abuse; Barbara Eisenstadt, Corner Drug Store program, University of Florida, Gainesville; Dr. Jerome H. Jaffe, Associate Professor, Department of Psychiatry, University of Chicago, and Director of the Drug Abuse Program of the Illinois Department of Mental Health; Dr. Edward Lewis, Chief Medical Officer, Bureau of Narcotics and Dangerous Drugs, Washington, D.C.; and many others.

Governor Buford Ellington delivered the welcoming address and Dr. Frank Luton,

Commissioner of the State Department of Mental Health, coordinating agency for the conference, presided at the opening meeting.

The University of Tennessee Medical Units

The Medical Units soon may be admitting almost totally Tennessee residents if recent trends continue, reports Admissions Director Eugene F. Tragesser. The quantity and quality of Tennessee applicants for admission to most of the colleges and programs of the medical units have been increasing so rapidly in recent years that, for instance, applications for the September, 1970, entering class in medicine produced two qualified Tennessee residents for each spot available in the class. Similar situations exist in pharmacy and dentistry. Non-resident enrollment in dentistry may shortly be restricted to residents of Mississippi and Arkansas (both states have enrollment contracts with the University).

Furthermore, said Tragesser, all applicants are presenting better credentials. "Not only are grade point averages higher, but degrees are in greater evidence." Approximately 95 to 97% of the students entering Medicine in September, 1970 will hold degrees.

Tragesser noted only one dark spot in the generally bright admissions outlook—federal loans and scholarships will be reduced for the coming year, making it more difficult, for both current and incoming students to secure financial assistance.

* * *

The University of Tennessee Medical Units have launched a long-range program to enroll black students for careers in the health professions.

Of the estimated 1,700 students enrolled at the Medical Units here only 24 are black. Records of the Comprehensive Public Health Planning Service show that Tennessee has 3,609 doctors and only 114 of these are non-white. The state has 1,515 dentists, of whom only 71 are non-white.

Since relatively few applications are being received from black students, a crash recruiting program, funded by an \$8,000 grant from the Office of Economic Oppor-

tunity, is now underway. The Medical Units were the only medical complex in the South and one of thirteen in the nation which received OEO grants of this type. Approximately \$5,000 of the grant will provide financial assistance for the black visitors and \$3,000 will cover the costs of recruiting on Tennessee College campuses.

The UT College of Medicine will enroll 100 new students next Fall and its objective is to have 10 black students in this number. The objective is based on the fact that approximately 11% of the nation's population is black and the black community has requested that black students constitute 10% of the new enrollees entering the nation's colleges of Medicine next Fall. At this time, only 2.2% of the nation's physicians are black.

Vanderbilt University School of Medicine

A Symposium on the Control of Hypertension will be held April 30, 1970, in connection with the Abraham Flexner Lectureship. Dr. Franz Gross of the University of Heidelberg has accepted the Abraham Flexner Lectureship for 1970.

The one-day symposium, jointly sponsored by Vanderbilt University and the Middle Tennessee Heart Association, will be held in Underwood Auditorium. Participants include, in addition to the distinguished visiting scientist, Dr. Gross: *Dr. Robert Gaunt*, Ciba Pharmaceutical Company, "Steroid Factors in Hypertension: Experimental Evidence"; *Dr. Irvine H. Page*, editor of *Modern Medicine* and member of the research division of Cleveland Clinic Foundation, "Hypertension as Mosaic"; *Dr. E. D. Freis*, Veterans Administration Hospital, Washington, D.C., "The Natural History of Untreated Hypertension: Statement of the Problem"; *Dr. W. Stanley Peart*, F.R.C.P., St. Mary's Hospital, London, England, "Renal Factors in Hypertension"; *Dr. James C. Melby*, Boston University, "Steroid Factors, Diagnosis and Treatment and New Developments"; *Dr. John Foster*, Vanderbilt University, "Surgical Aspects of Renal Hypertension"; *Dr. Grant Liddle*, Vanderbilt University, "Role of Adrenal Cortex"; and

Dr. John Oates, Vanderbilt University, "Malignant Hypertension: Mechanisms and Management."

* * *

A Division of Plastic Surgery has been established within the Department of Surgery with Dr. Greer Ricketson as chief of the division.

Training in plastic and reconstructive surgery, which includes head and neck surgery, the surgery of burns and of congenital anomalies, maxillo-facial trauma, aesthetic surgery, and general reconstructive surgery, including surgery of the hand, will be offered on a postgraduate level.

* * *

Dr. Marc Hollender, who was professor of psychiatry at the University of Pennsylvania, is replacing Dr. William F. Orr as Chairman of the Department of Psychiatry. He has been chairman of the psychiatry department at the State University of New York's Upstate Medical Center and director of Syracuse Psychiatric Hospital and chief of the psychiatric outpatient department for the University of Illinois Medical School's Neuropsychiatric Institute.

The author of *The Practice of Psychoanalytic Psychotherapy*, Dr. Hollender is a 1941 graduate of the University of Illinois Medical College.

* * *

Dr. Bradley E. Smith, Chairman of the Anesthesiology Department has begun his new assignment. He comes from the University of Miami Medical School, Coral Gables, where he was associate professor of anesthesiology. He was also consultant in anesthesia to the V. A. Hospital in Coral Gables and consultant for an anesthesia, maternity, and infant care project operated by Dade County. After graduation from the University of Oklahoma Medical School in 1957, Dr. Smith completed a residency in anesthesiology at the U. S. Naval Hospital in St. Albans, N. Y. He was a fellow in anesthesiology at Columbia University—Presbyterian Hospital Medical Center and an instructor in anesthesiology at Yale University Medical School before joining the University of Miami Medical School faculty in 1963.

* * *

The first Paul W. Sanger Professor of Experimental Surgery is Dr. John R. Ackermann of Cape Town, South Africa.

The Paul W. Sanger Professorship was established in April 1969 as a result of a gift from the late Dr. Paul W. Sanger, a 1931 graduate of the Vanderbilt Medical School and a past president of the Vanderbilt Medical Alumni Association. A specialist in renal transplantation, Dr. Ackermann developed the renal transplantation program now in operation at the University of Cape Town Medical School, where he has been senior lecturer in surgery and senior surgeon at Groote Schuur Hospital. In the field of surgical research, Dr. Ackermann is particularly interested in the problems of storage and preservation of kidneys and other tissues before transplantation. He will establish a research program in transplantation biology and will collaborate with members of the surgery and medical departments and the urology divisions at Vanderbilt and the Veterans Administration Hospital in the well established clinical renal transplantation program. He will be Director of the S. R. Light Laboratory for Medical Research at Vanderbilt and Director of the Surgical Research Laboratory at the VA Hospital.

Dr. Ackermann was graduated from Dioecesan College in South Africa and from the University of Cape Town Medical School with honors in 1960. After serving an internship in surgery and medicine at the Groote Schuur Hospital in Cape Town, he completed a residency in general and thoracic surgery. He then worked as investigator in the surgical research laboratories at the University of Cape Town Medical School and at St. Mary's Hospital in London, where his primary field was the biology of tissue transplantation.

PERSONAL NEWS

Dr. Jerre Freeman, Director of the Mid-South Eye Bank for Sight Restoration, was guest speaker at the January 19 meeting of the Whitehaven Lions Club.

Dr. H. A. Morgan, Jr., Health Officer for the Marshall-Bedford County Health Department,

has been appointed Medical Director of the newly formed South Central Regional Office of the State Department of Public Health.

Dr. Lloyd Elam, President of Meharry Medical College, was appointed to the National Advisory Committee to the John F. Kennedy Center for Research in Human Development in Nashville. Dr. Elam will serve a four-year term on the sixteen member advisory committee, composed of nationally eminent educators, scientists, and community leaders.

Dr. N. W. Kuykendall, Memphis, is now President of the Methodist Hospital medical staff.

Dr. Harwell Murrey, Pulaski, has been named Chief of Staff of the Giles County Hospital and President of the Giles County Medical Society.

Dr. A. J. Ingram, Memphis, has received Union University's Distinguished Service Award, given annually by the Union University Alumni Association in recognition of professional achievements. Dr. Ingram is now Secretary of the Board of Trustees of the American Medical Association.

Dr. Robert Proffitt, Maryville, has been selected Outstanding Senior Man of the Year by the Maryville-Alcoa Jaycees.

Dr. Carl A. Hartung, Chattanooga, presided over the 19th Annual Heart Symposium presented by the Chattanooga Area Heart Association. Dr. Hartung is Chairman of the Professional Education Committee of the Heart Association.

Drs. James R. Thurman, Cleveland, and **Donald R. Lewis**, Jackson, have been installed as Fellows of the American College of Obstetricians and Gynecologists.

Dr. Crawford W. Adams, Nashville, elected Treasurer of the American College of Chest Physicians and has also been appointed Editor of the American Journal of Cardiology.

Drs. Daniel A. Brody, Memphis, **Blair D. Erb**, Jackson, **Charles E. Koosmann**, Memphis, and **James W. Pate**, Memphis, were recently granted Fellowships in the American College of Cardiology, the National Medical Society for Specialists in Cardio-Vascular Diseases.

Dr. George Mann, Associate Professor of Medicine at Vanderbilt University, was the featured speaker at the February meeting of the Chattanooga Kiwanis Club.

Dr. Edwin F. Crocker, Jackson, was the guest speaker at a luncheon meeting of the Jackson Association of Life Underwriters.

Dr. Carroll H. Long, Johnson City, was the featured speaker at the annual banquet of the Business and Professional Women's Club of Nashville. Dr. Long was named as the 1969 "Physician of the Year" of the Tennessee Medical Association for outstanding service to his community and profession.

Dr. William Murray, Dyersburg, has been named Outstanding Young Man of the Year by the Dyersburg Junior Chamber of Commerce.

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BOOK REVIEW

ESSENTIALS OF ROENTGEN DIAGNOSIS OF THE SKELETAL SYSTEM. By Lester W. Paul, M.D., and John H. Juhl, M.D., both are Professor of Radiology at University of Wisconsin Medical School. 268 pages with 410 illustrations. Hoeber Med. Division of Harper and Row, New York, 1967. Price \$12.50.

This volume is taken from a larger book on *The Essentials of Roentgen Interpretation* by the same authors.

This book on the skeletal system is a valuable reference work for the internist and family physician in reviewing systemic diseases which have their manifestations in the skeletal system. This comment is made because of the interests of the reviewer in systemic disease. Nevertheless, the radiologist and practitioner of any of the medical and surgical disciplines will find much assistance in having this reference work available on his book shelf. It is highly recommended.

DAVISON'S COMPLETE PEDIATRICIAN. Edited by Jay M. Arena, M.D., Professor of Pediatrics, Duke University Medical Center, Durham. 792 pages. 9th Edition. Philadelphia: Lea & Febiger, 1969. Price \$19.50.

This is an old friend with a new format and cover. The book never was intended to be a text book and the new format has not changed this. Its coverage is too superficial for that purpose and it was always too large to be a handbook or a synopsis. For example, on page 517 of the new edition under the heading of Tetanus, appears the statement, "Tetanus is too common." While the meaning of this is apparent to the sophisticated pediatrician and the means of preventing tetanus are well done on subsequent pages, the student might not get the reference. Acute rheumatic fever and leukemia are also "too common."

Yet for quick reference retrieval of hard to find information such as differential diagnosis or obscure syndromes and blood chemistry values it is valuable for library, staff rooms and clinics where students work.

It is well indexed, in itself a prodigious task for such a book. I miss the unprofessional yet amusing doggerel verse on the advantages of evaporated milk which appeared in previous editions.

The new section on drugs, their use and abuse, are as well as the new section on poisoning and their treatment very well done by the new author-editor and friend of our beloved Dave. It is a valuable reference book for libraries and staff rooms and can be recommended for this purpose.

Excellent New Anti-Chiropractic Book Recommended by the AMA

"At Your Own Risk: The Case Against Chiropractic" is the title of the book, authored by Ralph Lee Smith, published September 11 by Trident Press. It is of particular value to the medical profession in that the debunking of chiropractic as a "science" is a factual, fully documented presentation of the history, philosophy and present-day practices of a profession that has confused the public by its false aura of science and its achievement of state licensure.

The author, an accomplished lay writer highly respected for his objectivity, reveals chilling facts: that a number of practicing chiropractors received their degrees by mail order; that apart from their chiropractic training, many chiropractors have only a high school education, and that no medical degree (MD) is necessary or even recommended as a prerequisite to engage in the practice of chiropractic.

The chairman of the AMA Committee on Quackery, Joseph A. Sabatier, Jr., M.D., in his review of the book, said: "This volume should be read by every physician. Also, any person who has an interest or commitment in the health care afforded his fellow man will be better equipped by virtue of the exposure of this unscientific cult as a significant health hazard. The book should be required reading for every person in the education field concerned with career counseling. All trainees in the health care field including every technical and professional branch and level of instruction should profit by study of the volume."

He adds that this book provides documented evidence upon which the scientific community, the general public—and most important of all—legislative bodies can reach a proper conclusion. In quoting the author, Doctor Sabatier wrote in his review: "Whatever the difficulties involved, state legislatures can no longer ignore their public obligation to face the issues and the facts, to acknowledge their error, and to set things straight. First of all, legislation in scientific fields that pays no attention to science is bad law, and shows a deep failure on the part of legislators to fulfill their responsibility to their constituents. Second, in this country at this time, anyone claiming to have a valid treatment for human illness should be required to show its validity before the bar of science before receiving a state license to use it on the sick. Third, the correct way to deal with treatment methods that cannot or will not submit to the judgment of scientific research is not to limit and oversee them, but to prohibit them. By abandoning all these precepts in the face of political pressures created by chiropractors, state legislatures have created a state-supported medical superstition."

Smith proposes two steps that he says must be taken by the legislature in the 48 states that license chiropractors:

"The first step, and one that must be taken immediately, is to prohibit further use of x-ray by chiropractors . . . and the next step is for each state to create an orderly program for withdrawing chiropractic licenses."

Doctor Sabatier advised that any scientifically oriented person who reads this book and who does not recognize his own obligation in exposing to the public the dangers of this specific health hazard would do well to re-examine his motives. To help the medical profession accelerate and implement its efforts to further its program of anti-chiropractic education, the AMA Department of Investigation has purchased a considerable quantity of "At Your Own Risk" and offers them at a discount price to medical societies and to individual physicians. In August, the Department sent 100 paperback versions and one hard-cover book to each state medical society, and one paperback to each county medical society.

In a letter to each society, H. Doyl Taylor, director of the department, announced that although the hard-covers are priced at \$4.95, the special reduced cost for 11 or more is only \$2.50 each. Similarly, the individual price for the paperbacks is 95 cents, but the AMA is making a special offer of 50 cents each for orders of 11 or more. The books, in both hard-cover and paperback, are available from the AMA Order Department, 535 North Dearborn Street, Chicago, Illinois 60610.

Mr. Taylor recommends a wide distribution of this book throughout both the profession and the community because "we believe this independently written, privately published book will be another major tool that can be used in medicine's continuing attempts to inform the public, in general, and the legislators, in particular, about the evils of chiropractic."

Prepared by Norman H. Budde
Program Services Department
American Medical Association

ANNOUNCEMENTS

Calendar of Meetings

1970

State

- | | |
|-----------|---|
| May 21 | Middle Tennessee Medical Association, AEDC, Tullahoma |
| May 26-29 | Mid-South Medical Association, Holiday Inn-Rivermont, Memphis |

National

- | | |
|----------------|---|
| April 27-May 2 | American Academy of Neurology, Americana Hotel, Miami Beach |
| May 4-5 | American Cancer Society's 12th Annual Cancer Seminar, Frontier Hotel, Las Vegas |
| May 4-5 | AMA Congress on Environ- |

- | | |
|------------|---|
| May 10-14 | mental Health, Statler-Hilton Hotel, Washington, D.C. |
| May 11-15 | American Urological Association, Bellevue-Stratford Hotel, Philadelphia |
| May 20-23 | American Psychiatric Association, San Francisco |
| May 24-27 | American Gastroenterological Association, Sheraton-Boston, Boston |
| May 25-27 | American Thoracic Society, Sheraton, Cleveland |
| May 28-30 | American Gynecological Society, The Homestead, Hot Springs, Va. |
| June 15-17 | American Ophthalmological Society, The Homestead, Hot Springs, Va. |
| June 21-25 | American Neurological Association, Claridge Hotel, Atlantic City |
| | American Medical Association, Annual Meeting, Chicago |

"Guides to the Evaluation of Permanent Impairment—The Skin"—AMA

This guide, like all the others in the series, has been designed primarily for use by physicians. The guide is, however, of interest and use to all concerned with the medical, administrative, or judicial aspects of programs for the disabled. A limited number of copies of this guide may be obtained, without charge, upon written request to the Committee on Rating of Mental and Physical Impairment, 535 North Dearborn Street, Chicago, Illinois 60610.

Mid-South Medical Association 81st Annual Meeting

The Mid-South Medical Association (formerly the Mid-South Postgraduate Medical Assembly) will hold its 81st Annual Meeting at the Holiday Inn-Rivermont in Memphis, on May 27-29. An excellent program has been arranged with outstanding guest speakers presenting the latest advances in medicine. In addition, the Memphis Regional Medical Program will present aspects of "Rehabilitative Approaches to Patient Care" on Wednesday and Thursday afternoons, which will be of special interest to both physicians and para-medical personnel.

A post-convention 14-day tour of the Orient has been arranged for the members at their expense. The group will leave Memphis on June 1, fly directly to Tokyo for 7 days (optional side trips to Nikko, Kyoto, and Expo '70) and then on to Hong Kong for the remaining 7 days.

ACP Post Graduate Courses

The American College of Physicians has scheduled the following two courses: (1) "Recent Advances in Endocrinology and Selected Metabolic Diseases," April 22-25, at the University of

California, San Francisco School of Medicine; (2) "Clinical Aspects of Infectious Diseases," May 20-22, at the University of Washington School of Medicine, Seattle. Requests for information should be addressed to: Edward C. Rose-now, Jr., M.D., Executive Director, American College of Physicians, 4200 Pine Street, Philadelphia, Pennsylvania 19104.

Cancer Seminar to be Held in Denver

The Ninth Annual Seminar on Cancer and Diseases of the Breast will be held in Denver, Colorado at the Brown Palace Hotel May 14-16. Surgeons, Radiologists, Pathologists, teachers, residents and technologists interested in diagnosis and management of early breast cancer are invited to attend the seminar and participate in the sessions. The program will be sponsored by the American College of Radiology and the Cancer Control Program of the U. S. Public Health Service.

Physicians and others interested in attending the seminar should write Dr. Wendell P. Stampfli, Local Arrangements Chairman, c/o St. Luke's Hospital, Denver, Colorado.

Tennessee Heart Association Annual Meeting

The Annual Meeting will be held on May 21-22, at the Mountain View Hotel in Gatlinburg.

The opening day will consist of scientific presentations and has been designated as "Cardiac Day." Nationally eminent speakers will discuss such topics as: Pathophysiology of Arrhythmias, the Bedside Diagnosis of Tacharrhythmias, the Electrophysiologic Action of Anti-arrhythmic Drugs, Pathophysiology of Heart Block, Bedside Diagnosis of Heart Block, and the Role of Permanent Cardiac Pacemakers.

The second day will be open to both lay and professional people and will begin with short presentations on subjects such as Computer ECG, Vectorcardiography, and Ultrasound. Four reactor panels will also be held simultaneously on the following topics: Research, Evaluation, Fund-Raising, and an Exercise and Risk Factor Program.

The General Assembly of the Tennessee Heart Association will meet at 3:00 on Friday as the final order of business.

* * *

Mid-South RMP Announces Appointments

Members of the 1973 Class of the Regional Advisory Group (RAG) for the Tennessee Mid-South Regional Medical Program (TMS/RMP) have been announced. Fourteen members whose terms expired in January were reappointed for three-year terms, seven new members were appointed for three years each and three were appointed for a one-year term to replace three resignations. Candidates for possible appointment had been submitted to the nominating committee by the various institutions, agencies, organizations, voluntary health agencies and lay public.

Physicians reappointed for three-year terms are: Faxon Payne, M.D., of Hopkinsville, Ky; Robert S. Anderson, M.D., of Nashville; Randolph Batson, M.D., of Nashville; Benjamin Byrd, M.D., of Nashville; G. J. Tarleton, M.D., of Nashville; David P. McCallie, M.D., of Chattanooga; Donald W. Bales, M.D., of Kingsport; Edward Hyder, M.D., of Erwin; and Gilbert Rannick, M.D., of Johnson City. Each has served on the RAG since its formation in 1966.

New physician appointees include: Kent Carter, M.D., of Kingsport; William Hensley, M.D., of Cookeville; and Ben D. Hall, M.D., of Johnson City.

New physician members and reappointees to the four TMS/RMP study groups on Cancer; Heart; Stroke; and Education, Research & Communication have also been announced.

Reappointed to the Heart Study Group were: Joseph E. Acker, Jr., M.D., of Knoxville; and Walter A. McLeod, M.D., of Johnson City. The new members are: E. P. Muncy, M.D., of Jefferson City; and Walter Puckett, M.D., of Chattanooga.

The Cancer Study Group reappointees were: E. Kent Carter, M.D., of Kingsport; N. H. Talley, M.D., of Princeton, Kentucky; and George G. Young, M.D., of Chattanooga. Louis Bernard, M.D., of Nashville and Dave J. Slagle, M.D., of Elizabethton are new members.

Reappointed to the Stroke Study Group were: Calvin Calhoun, M.D., of Nashville; Julian C. Lentz, Jr., M.D., of Maryville; and Robert M. Roy, M.D., of Nashville. Frank Moore, M.D., of Bowling Green, Kentucky is a new member of this study group.

The Education, Research & Communication Study Group's new members are: Robert C. Coddington, M.D., of Chattanooga; and Lyle Smith, M.D., of Kingsport. Reappointed was Charles A. Trahern, M.D., of Clarksville.



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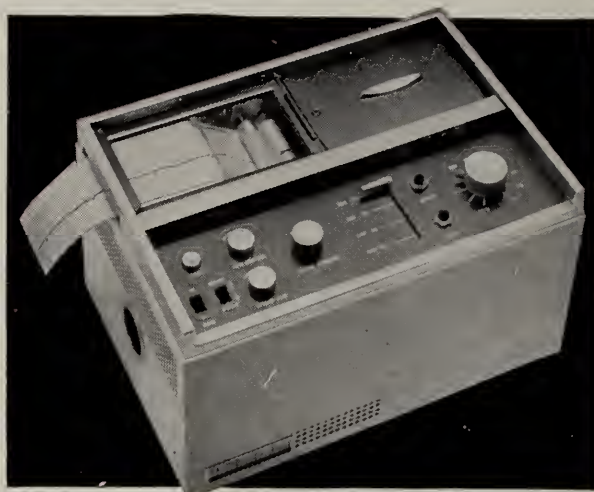
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Instructions to Contributors

Manuscripts submitted for consideration for publication in the JOURNAL OF THE TENNESSEE MEDICAL ASSOCIATION should be addressed to the Editor, Dr. R. H. Kampmeier, Vanderbilt University Hospital, Nashville, Tennessee 37203.

Manuscripts must be typewritten on one side of letter-weight paper. Either double or triple spacing and wide margins must be provided to facilitate editing which will be legible for the printer.

Bibliographic references should not exceed twenty in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to the style used in the American Medical Association publications, as—Alais, F. G.: What Is Known About it, J. Tennessee M. A., 35:132, 1950.

Illustrations must be mounted on white cardboard and be numbered. The editor will determine the number, if any, of illustrations to be used. Additional illustrations will be charged to the author. The author's name should appear on the back of each illustration.

If reprints are desired, the requested number should be indicated in the letter accompanying the manuscript. The author will be billed by the publisher.

Pseudohermaphroditism has always been puzzling and points up the need for accuracy in diagnosis, so essential to the physical and mental health of those so afflicted. As the sciences of endocrinology and genetics expand, more knowledge is gained upon these secrets of nature. The author reviews the rapid advances in this field and their application to the practice of medicine.

The Syndrome of Testicular Feminization: Current Concepts*

ROBERT C. NORTH CUTT, M.D., Nashville, Tenn.

Introduction

Unorthodoxy as well as orthodoxy of the human genitalia has captivated at least the imagination of mankind throughout history. Men of medicine are no exception. True hermaphrodites with two types of gonadal tissue and the pseudohermaphrodites with one type are nominal categories for individuals with erroneous or uncertain sex assignment. In both categories a wide variety of genital unorthodoxy is seen and great effort has been expended to catalogue and etiologically to classify such patients and their disorders. The testicular feminization syndrome is a familial form of male pseudohermaphroditism characterized by virtually complete feminization and an apparently unique resistance to the biologic effects of testosterone. Although this syndrome is quite rare, new interest in it has been aroused since it may serve as a model for the study of the action of testosterone. In this brief review the salient clinical and laboratory features will be presented and some of the more recent investigations will be summarized which have contributed to our current knowledge regarding the possible pathogenesis of this disorder.

Clinical Features

Most of the important clinical and anatomic features of the testicular feminization syndrome were compiled by Morris¹ who is credited with the definitive clinical descrip-

Table I

Clinical Features of Testicular Feminization

1. Female habitus, breast development, and body contour
2. Scanty or absent axillary and pubic hair
3. Female external genitalia with a blind ending vagina
4. Testes located from the lower pole of the kidneys to the labia
5. Testes differ slightly from usual undescended testes and have high incidence of neoplasm
6. Rudimentary male duct system, epididymis and vasa
7. Absence of female duct system, uterus and fallopian tubes
8. Negative sex chromatin and a 46/XY karyotype
9. High incidence of scanty or absent sexual hair in female family members
10. Unresponsiveness to the virilizing and metabolic effects of testosterone

tion of this disorder. These are summarized in table 1 with emphasis on the adult or post-pubertal patient.

Body habitus, changes in contour, and breast development occur at the usual age of puberty and are characteristically normal for a woman. Menarche does not occur, and pubic and axillary hair growth is scanty or absent. The external genitalia are normal for a woman but, on examination, the vagina ends blindly and no cervix is seen. Rarely, the vaginal canal is absent with only a superficial depression being present.

The testes are usually present in the labia majora, inguinal canals, or in the lower pelvis but may be located as high as the inferior poles of the kidneys. As many as

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half such patients may have an associated inguinal hernia. The testes have been estimated by some authors to show as high as a 30% incidence of neoplasms particularly in the older individuals. Some of these tumors are malignant and are similar in type to those arising in undescended testes of otherwise normal men. Histologically, the testis differs from the usual cryptorchid testis in having a smaller tubular diameter, less frequent by the presence of germinal epithelium, and hyperplasia of the Leydig cells. Rudimentary epididymis and vas deferens are usually present but end blindly within the pelvis, and consequently cysts of these structures may be encountered. The uterus and fallopian tubes are characteristically absent.

Psychologic orientation regarding gender identity and maternalism is essentially that of a normal woman. Many of these individuals have had successful marriages and have had normal female sexual responses, and at least one patient has described almost monthly episodes of pelvic pain which she attributed to ovulation.

The genotypic or chromosomal sex is consistent with the male gonadal sex. Characteristically, the chromosome analysis from these patients have had a normal male karyotype (46/XY). Certain abnormal karyotypes have been described, however, in which the individual had either an extra X or Y chromosome in addition to the normal male complement. Although the familial nature of this syndrome is well established the precise mode of genetic transmission is not known. Pedigree studies have shown the mode of inheritance to be either that of an "X" linked recessive or a male-limited autosomal dominant. Linkage studies have been unsuccessful in further elucidating which is correct. The frequent occurrence of mothers and sisters of the affected males to have scanty or absent pubic and axillary hair is probably compatible with either type of genetic transmission and serves to emphasize the hereditary aspects of this disorder.

Paramount in this syndrome is the inability of affected individuals to respond to the virilizing and metabolic effects of testosterone. Testosterone secretion by the testes

of these individuals is comparable to that of normal men but virilization at puberty does not occur. Estrogen production from testicular steroid precursors in the testicular feminization syndrome is the principal source of this hormone as it is in normal males. The metabolic conversion of testosterone to estrogens is also comparable to that seen in normal men. The administration of large doses of exogenous testosterone to these individuals has failed to produce sexual hair growth, voice changes, increases in production of sebum, or clitoral hypertrophy. In addition, the anabolic response to testosterone, as measured by nitrogen, citrate, or phosphate retention, is not observable. Essentially all of the anatomic, clinical, and endocrinologic manifestations of this disorder may be explained on the basis of unresponsiveness to the androgenic and anabolic effects of testosterone.

Diagnosis

The diagnosis of the testicular feminization syndrome rests on establishing the patient to be a genetic male with testes capable of producing testosterone who is unresponsive to the biologic effects of testosterone. Several varieties of developmental and congenital abnormalities may resemble this disorder but do not fulfill all of the above criteria. The anatomic findings of absence of the uterus and feminization, including development of the breasts, may be seen in otherwise normal females. Certain male pseudohermaphrodites may present with a vagina and "labial" testes. Such situations are not, however, coincident with lack of responsiveness to testosterone. Prepubertal patients who have the testicular feminization syndrome and patients who have had bilateral orchiectomy may present diagnostic difficulties. However, the demonstration of unresponsiveness to testosterone in a genetic male in whom the presence of testes has at some time been documented is strong presumptive evidence for this diagnosis. Such is also the case when unresponsiveness to testosterone is demonstrated in a prepubertal patient whose testes produce testosterone when stimulated with chorionic gonadotropin. Furthermore, as additional experience is gained, certain *in vitro*, as well as clinical techniques may become available

which will provide an objective laboratory means for establishing this diagnosis.

Management

The clinical management of patients with the testicular feminization syndrome requires careful attention to both the emotional and medical aspects of this disorder. Foremost, as with other disorders of sexual development, the physician must always use discretion regarding the patient's genetic and gonadal sex and provide reinforcement of the patient's sexual identity. The absence of menses and the prospects of infertility, which are frequent presenting complaints, may be the most difficult aspect of management. Emotionally, the patient may be deeply concerned regarding this aspect of her womanhood and proper concern for this must be shown by the physician. The patient can be made aware that the anatomic findings she has are occasionally encountered in otherwise normal women. She must be reassured that she will be capable of functioning normally as a woman but due to her "birth defect" will be infertile. Finally, anatomic discussions with the patient or her parents should be guarded with respect to utilizing terminology which might in some way suggest sexual ambiguity.

The medical aspects of management in different age groups are based upon the patient's needs and a knowledge of the natural history of testicular feminization. The prospects of neoplastic degeneration of the testes in these patients is real but is significant primarily in older patients. Bilateral orchiectomy was once advocated at the time of diagnosis regardless of the patient's age. This is somewhat radical. In "female" children presenting with an inguinal hernia and a partially descended testis in the hernia sac, the gonad should be histologically identified. Unless orchiectomy is absolutely necessary, the remaining testicular tissue should be left in place until it can be shown that the patient is or is not responsive to the virilizing action of testosterone. If normal responsiveness to testosterone is demonstrated, the diagnosis of testicular feminization can not be made and the remaining testis should be removed before

puberty to prevent significant virilization at that time. If unresponsiveness to testosterone is demonstrated, no further attempt to remove the remaining testicular tissue should be made until after pubertal development and adult growth is achieved. Castration of a patient with testicular feminization should, therefore, be postponed until near the age of 20 years or at the time of diagnosis only in patients older than this. Such an approach avoids the necessity of replacement therapy with ovarian steroids until after pubertal development is complete and allows removal of the testis before an age at which neoplastic degeneration becomes a significant hazard.

Vaginal reconstruction, if indicated, can be performed as the age of regular sexual intercourse and marriage approaches. The absence of pubic hair occasionally is cause for concern by patients but little can be done for this at the present time.

Endocrine Features

The results of most of the endocrine studies with this syndrome serve to emphasize that the testes produce approximately normal quantities of appropriate steroids. The secretion rate, blood level, and clearance rate of testosterone is that of normal males as is estrogen production. The testosterone and estrogen levels fall promptly following castration confirming the testes to be their principal source. Menopausal symptoms also occur following bilateral orchiectomy and replacement is required.

Differences in peripheral metabolism of testosterone have been found which indicate that patients with testicular feminization are *qualitatively* distinct from normal males. Two approaches to the study of the peripheral metabolism of testosterone have been employed in an attempt to further define these qualitative differences. One means has been the administration of isotopically labeled testosterone by various routes coupled with the qualitative and quantitative assessment of the pattern of urinary metabolites produced. The other is a direct *in vitro* technique of examining the metabolism of testosterone by the target tissues themselves.

A number of products of testosterone metabolism have been identified and characterized in mammalian tissue including those of man. In general such compounds have been found to have less androgenic potency than testosterone. However, one such metabolite, 5 α -dihydrotestosterone, has been shown to possess more than twice the androgenic potency of the parent compound, testosterone.² Wilson and Bruchovsky³ have adduced from a revealing series of experiments that this compound, 5 α -dihydrotestosterone, is the principal metabolite of testosterone in androgen target tissues. Furthermore, it is not produced significantly by tissues unresponsive to androgen and may in all likelihood be a fundamental compound for the ultimate expression of the androgenic activity of testosterone.

These *in vitro* techniques have been applied by us to the study of the tissues of patients with the testicular feminization syndrome.⁴ The metabolism of testosterone in skin, epididymis, vas deferens, and pubic hair follicles was examined and compared to normal males and females with respect to their ability to form 5 α -dihydrotestosterone from testosterone. In all of these testosterone target tissues, those from patients with testicular feminization syndrome exhibited a distinct deficiency in their ability to produce 5 α -dihydrotestosterone from testosterone. It was concluded that the unresponsiveness of end organs of these patients to the androgenic action of testosterone might be explainable on the basis of an inability to convert testosterone to its more active form.

Studies on the fate of injected isotopically testosterone in patients with testicular feminization has provided additional evidence indicating that a qualitative defect in testosterone metabolism exists in this disorder.⁵ Certain metabolites of 5 α -dihydrotestosterone were significantly decreased in amount compared to normal males, a finding consistent with the *in vitro* studies indicating a defect in the ability to reduce testosterone to 5 α -dihydrotestosterone. If 5 α -dihydrotestosterone is indeed the active form of testosterone in target tissues, these *in vitro* and *in vivo* findings are compatible with a defect in the biochemical activation

and thus the biologic effectiveness of testosterone as an androgenic steroid.

The foregoing studies may serve to answer certain questions regarding the lack of responsiveness to the androgenic or virilizing effects of testosterone in the testicular feminization syndrome. However, they have not contributed significantly towards an understanding of the lack of responsiveness to the protein sparing or anabolic effects of testosterone. Little or no anabolic effect has been observed in response to administration of 5 α -dihydrotestosterone to patients with testicular feminization.⁶ Furthermore, 5 α -dihydrotestosterone is not quantitatively a significant metabolite in skeletal muscle which is a principal site of the anabolic effects of testosterone. Thus, the anabolic activity of testosterone may very well be mediated through another mechanism not involving 5 α -dihydrotestosterone. As a corollary to this line of reasoning, the anabolic and androgenic unresponsiveness to testosterone in the testicular feminization syndrome is then either a result of two defects in testosterone metabolism or to a single defect fundamental to both biologic activities and currently unknown.

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A Half Century of Nashville Medicine*

R. H. KAMPMEIER, M.D., Nashville, Tenn.

It takes a certain amount of temerity even to entertain the thought of an historical discussion in 1969. The young generation will have no part of irrelevance, and to many of them nothing is more irrelevant than history. If one reads correctly in magazines and newspapers these days, one sees quite clearly written that the past is "for the birds," and that life today must face this day and hopefully look to a brighter future. I have some degree of courage, however, since I am not addressing today's activists, but in the main graduates of past years who have learned that there is a positive advantage in looking backward, essential to perspective and understanding. The age of this audience permits understanding of the words of Felix Marti-Ibanez when he said that "the history of medicine is medicine. The physician's work—acquires meaning only when it is interpreted in reverse, a film shown backward."

For the Vanderbilt Alumni Day the interest must focus upon Vanderbilt University School of Medicine, the reason for our being here. However, I wish to look backward, if for no other reason than if I were to limit my comments to the "new" medical school only, I would have little to say, other than to recapitulate what was said so well by Dr. John B. Youmans,¹ four years ago upon a similar occasion. He spoke to you on the topic "Vanderbilt—Yesterday, Today and Tomorrow." He needed to look backward a bit to anchor the "new" medical school to a few relevant items of the more distant past, even though his story began with the year 1925.

In groping for a topic which might prove of interest and yet avoid repetition of what Dr. Youmans so ably presented, I had the thought of pursuing the story of *Nashville Medicine* as points in time related to the "old" Vanderbilt and then the influence of the "new" Vanderbilt after it was born, grew and flourished. Thus, I hope this story may complement that told by Dr. Youmans.

*Read in part at the Vanderbilt Medical Alumni Reunion, Nashville, Tenn., June 6, 1969.

When I specify a half century of Nashville Medicine, I do so with poetic license, using only a relatively fixed time of onset and of offset. Therefore, I begin with the Flexner Report in 1910, and loosely end the half century with the year 1960 for several purely personal reasons. This year marked the beginning of the end of my own era of activity in the Department of Medicine, as I directed the affairs of the Department for the year following Hugh Morgan's retirement. It offers, too, a cut-off point in that with Dr. Youmans' and then Dr. Morgan's retirement the actual *fulltime faculty* of the early days of the "new" school was no longer represented. Also this point in time marked the completion of my own 25 years at Vanderbilt of the half century I am reviewing today.

Though your main interest today is in the Vanderbilt University School of Medicine, its growth and accomplishments, its students and faculty, its light moments and serious moments, it represents but a portion of the rich medical heritage of a Nashville which had much that came before and will have, no doubt, much to come in the future, beyond any prediction or comprehension of any of us today.

So, briefly explore with me Nashville's medical heritage upon which the "new" medical school was built, for clearly in this "Athens" it did not spring completely armed from a Zeus' brow as did the fabled Pallas Athena, Goddess of Wisdom, honored in the Parthenon of that ancient Athens. For why did Flexner write in 1909, "The institution to which the responsibility for medical education in Tennessee should just now be left is Vanderbilt University; for it is the only institution in position at this juncture to deal with the subject effectively."

Historical Background

Quickly, for perspective, it may be well to recollect that medical education in this country began in the University of Pennsylvania in 1765, followed by an additional three medical schools in the next four

decades. Few doctors accompanied the frontiersmen as they pushed westward from the Atlantic seaboard, and so there was need for medical schools in this new land, the first the medical department of Transylvania College of Lexington, Kentucky in 1817, and the second the Medical College of Ohio in Cincinnati, which this year is celebrating its 150th Anniversary. Louisville and Nashville were to become prominent medically on routes of the water borne migration westward.

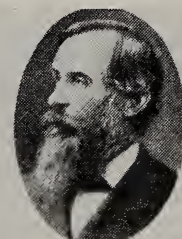
General James Robertson, Nashville's founder, had prevailed upon the General Assembly of North Carolina, in 1785, to establish the Davidson Academy, in the extension of that state known as Davidson County. In 1806, this, the only educational institution in Tennessee, received a Federal land grant and was named Cumberland College. A Dr. Philip Lindsley, refusing the Presidency of his Alma Mater—Princeton, accepted the Presidency of this College in 1824, with the dream of establishing an ideal university for the area. The legislature named it in 1826 The University of Nashville. Through years of vicissitudes it eventually was closed by a cholera epidemic in 1850. As early as 1837, President Lindsley in a speech said,

"How soon it may be practical to add the faculties of law and medicine, and what should be their character are questions more easily asked than answered. Such faculties might be organized immediately were we content to be on a par with Harvard, Yale and Virginia. But one or two professors of law and three or four of medicine would not meet our views—or equal to the ones of the profession."

Seven years later its President presented resolutions which were passed by the Board of Trustees for planning the medical department, stating "That no student be graduated unless he held an A.B. degree or could stand a satisfactory examination in classical literature and the liberal sciences." He specified that the university should "exercise entire supervision and control over the new department," a vision revolutionary 125 years ago, and antedating standards to be set by the Flexner Report 65 years later.

However, matters took a different turn in 1850, when Dr. W. K. Bowling arrived in Nashville, and he and another Dr. Lindsley

(J. Berrien) convinced the Board of Trustees of the University of Nashville to agree to a 22-year lease by a faculty of physicians who would enlarge and equip the buildings from their own private means with all these to revert to the University upon the expiration of the lease. (Fig. 1) (This was con-



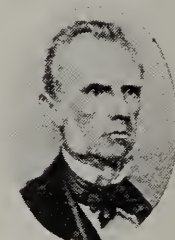
DR. J. BERRIEN LINDSLEY
1822-1897
Professor of Chemistry, Leading
-1840 in Founding Medical De-
partment of the University of
Nashville



DR. W. K. BOWLING
1808-1885
Professor of Medicine



DR. CHARLES K. WINSTON
1811-1882
Professor of Materia Medica
and Therapeutics



DR. A. H. BUCHANAN
1808-1862
Professor of Surgery



DR. JOHN M. WATSON
1796-1866
Professor of Obstetrics and the
Diseases of Women



DR. ROBERT M. PORTER
Professor of Anatomy

GROUP OF PROFESSORS IN THE MEDICAL DEPARTMENT OF THE
UNIVERSITY OF NASHVILLE AT ITS FOUNDATION
THE ORIGINAL FACULTY

Fig. 1

trary to Philip Lindsley's "idea of a medical school's utter dependence upon the parent institution.") The first class was admitted the following year. It grew until, in the year 1859-60, 456 students were enrolled. In terms of numbers the school ranked second among the medical colleges of America. Though the enrollment decreased during the Civil War, the doors of the school were never closed. Even though the grounds and the buildings were in the hands of the Federal troops, who used the buildings as hospitals and barracks, 4 professors continued to teach as one said "literally surrounded by the dead and the dying."

In 1875, the medical faculty, wishing to

erect a hospital, entered upon an operating relationship with Vanderbilt University, whose Trustees agreed to adopt the faculty of the medical department of the University of Nashville and whereby students might matriculate in either of the two universities, diplomas to be granted in this way by either university (or by both). This agreement meant that Vanderbilt without any expenditure of monies

"secured even before it opened its academic department, a medical school a quarter of a century old, famous in its day, and at that time well and favorably known. The alliance, however, at the same time brought to the medical school of the University of Nashville (whose collegiate department had been closed for a quarter of a century), the prestige of an institution under the patronage of a great church and supported by an endowment far greater than that of any other school south of the Ohio River."²

The first Vanderbilt medical diplomas were issued to a class of 61 in 1875; soon it was enrolling the majority of the matriculants and began to eclipse the University of Nashville.

Vanderbilt University proper had its beginning in a charter to the Central University of the Methodist Episcopal Church South and, unable to raise funds in the impoverished South, readily accepted a half-million dollars offered by Cornelius Vanderbilt, later increased to a million dollars. It is ironical that on April 28, 1874 the renowned Dr. Charles F. Deems an eminent and Southern divine said, upon the laying of the cornerstone, "We are laying today the cornerstone of an institution that proclaims eternal warfare on Science." Just one week before, on April 21, the University had already entered the scientific field with its first department, upon the adoption of the University of Nashville Medical Department and was to grant its first diploma even before the University was formally opened.

Possibly I have spent undue time with the half-century immediately preceding the half-century of today's topic, but it is necessarily of interest to learn how Vanderbilt University embarked upon the sea of medical education. The venture in medical education between the University of Nashville and Vanderbilt University was dissolved in 1895. In 1909, the University of Nashville joined forces with the University

of Tennessee* (in Nashville) to leave this city two years later and settle on the banks of the Mississippi River, thereby leaving Vanderbilt University as the purveyor of medical knowledge in Nashville.

The "Old" Vanderbilt

Now just what happened in the reorganization of the School of Medicine of Vanderbilt in 1895 is not clear from anything I find in print. Up to the time of dissolution of the agreement between the University of Nashville and Vanderbilt, the history of the latter's department seems to have been the same as that of the University of Nashville. However, Robinson³ states that Chancellor Kirkland, in 1893, made an indirect reference to the medical school in his inaugural address by pointing to the appalling lack of standards and ideals in the professions, with the words, "Lawyers know little law and doctors less medicine when they begin their dangerous careers." Robinson says further that a year later Kirkland began to bring the medical school under the control of the University, and that with its reorganization in 1895 and the appointment of William L. Dudley, professor of chemistry as dean, matters began to change. (Fig. 2) One has an inkling that Chancellor Kirkland had valuable assistance not acknowledged above. In a writing by Dr. Owen H. Wilson,⁴ in 1944, after comments upon opening an office with Dr. Richard Douglas in 1892, one reads the following:

"The next year Billy Witt and Dick Barr, both literary graduates, decided to take up medicine and wanted to study with Dr. Douglas and me in our office, . . . They too were disgusted with the type of instruction in the medical college and we introduced Dr. Douglas to Drs. Kirkland and Dudley, and they decided upon a change and persuaded the Board of Trust to build a new medical school on the corner of 5th and Elm. Drs. Douglas, Savage, and Price undertook to

*In 1876, Drs. Duncan Eve and W. F. Glenn organized the Nashville Medical College, recruiting faculty from the medical departments of the University of Nashville and Vanderbilt University. The first class graduated in 1878. It established the first dental school in the south in 1879. That year the University of Tennessee at Knoxville proposed and worked out the adoption of the Nashville Medical College as the medical department of the University of Tennessee.

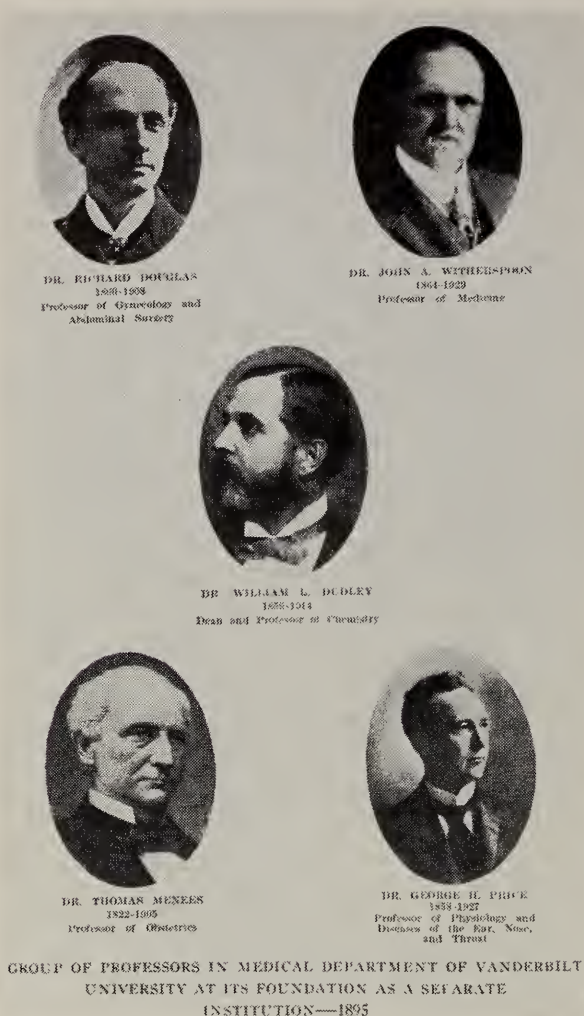


Fig. 2

form the faculty. Dr. Douglas, in spite of a 20-year feud with Duncan Eve, shook hands with him and persuaded him to head the Surgery and they then induced Dr. John A. Witherspoon to take the chair of Medicine. Thus began the present Medical Department of Vanderbilt, with high school entrance requirements, a four-year graded course and written examinations. On this faculty selected were three future presidents of the American Medical Association."

In support are the words of Dr. Witt⁵ as he presided upon the occasion of Dr. Owen Wilson's 78th birthday dinner in 1948. In extending his remarks upon Dr. Wilson's contributions and life work, he said,

"I refer to his close association with a group that labored so persistently to perpetuate the Vanderbilt School of Medicine at a time when it was threatened with its very existence. When that period arrived in which medical education in the South was practically dependent on additional endowment, our school had to revise its course and add materially to its list of teachers and clinical features. Dr. Wilson did good service in collaboration with Chancellor Kirkland, Dr. Richard Douglas, Dr. W. L. Dudley and several

others during that trying period in the early years of this century. Nothing more important has been done in the educational field than the untiring and far-seeing work of these men. They must not be forgotten."

It seems certain therefore that Chancellor Kirkland and Dean Dudley had strong allies among the profession and the faculty upon which to build an institution of lasting worth. Those named by Doctors Wilson and Witt were leaders in the profession without question, and it is worth recording that Dr. "Dixie" Douglas, wherever one reads of him, is identified as the first Nashville surgeon to break with tradition and to adopt whole heartily asepsis and antisepsis. This helps to establish what manner of men, joined by oncoming colleagues who measured up to their standards, aided Chancellor Kirkland in moving onward Vanderbilt's Medical Department toward that time of decision, a quarter of a century later, when it was not found wanting.

I come now to today's topic. I need not retell the story of the AMA study of medical education, and its enlistment in 1908 of the Carnegie Foundation to extend the study which ended with the Flexner Report in 1910 or 1912—the report which closed half the medical schools and led to the marriage of most of the remainder to universities.

I have already quoted Flexner's choice of Vanderbilt as the Nashville school to carry on, for geographic reasons and because of its able Chancellor.

In 1909, Flexner wrote of the medical schools in Tennessee that

"The State of Tennessee protects at this date more low-grade medical schools than any other Southern State. . . ." He pointed out that "the six white schools value their separate survival beyond all other considerations. . . . Those who deal with medical education in Tennessee are therefore making the worst, not the best, of the limited possibilities." He added, "If our analysis is correct, the institution to which the responsibility for medical education in Tennessee should just now be left is Vanderbilt University, for it is the only institution in position at this juncture to deal with the subject effectively." And though Flexner levelled criticisms at certain of its defects and decried the lack of funds, he concluded "that in the public interest, the field should be left to the institution best situated to handle it". . . . Furthermore, "If the entire fee income is used to equip laboratories, to employ full-time teachers in the fundamental branches,

to fit out and organize a good dispensary, there will still remain defects and makeshifts enough; but the school will wear a different aspect from that of any other institution in the state today."

Though Flexner recognized the potential strength of Vanderbilt University as the locus of a medical school, rather than hospitals or the formal teaching of 1910, his recommendation also must have had roots in those ill-defined areas, of professional climate, atmosphere, environment, or what you will. Thirty years after he had come and gone as Dean of the "new" school, G. Canby Robinson³ wrote,

"The medical profession of Nashville, which had carried the burden of education for so many years with such meager resources and at times discouraging outlook, had unusual qualities. Many of these physicians were men of broad culture who had enjoyed the influence of one of the South's leading universities. There was conspicuous leadership among the Nashville profession over many years," and "the relatively small city of Nashville has furnished more presidents of the American Medical Association than any other city of its size. Only the states of New York, Pennsylvania and Illinois have furnished more AMA presidents than has the city of Nashville."

Quite obviously the human element and not bricks determines the lasting success of an educational institution, and so one must search out the men who offered the milieu in which Flexner could visualize a model medical school.

In the oldest catalogue of the Vanderbilt University School of Medicine (1912) I find the names of the doctors who carried the major responsibilities of administration and teaching in the School. These are the men to whose list were added many more in subsequent years.

Fortunately for me we have the writings of Dr. Witt to fill in the niches. In 1938, upon the occasion of the presentation of a portrait of Dr. Canby Robinson, first Dean of the School on the West Campus, Dr. Witt paid

"tribute to those devoted servants of our Medical School during the 30 years of doubt as to whether our School would survive and meet the requirements of a modern School of Medicine. Those years in which the great body of our teachers received no pay for their services—years in which full-time teachers of *Bacteriology*, *Pathology*, *Chemistry*, and some other subjects were added to our staff and in which clinical teaching evolved from a minor state to one of

which we were proud. And I wish to call by name some of the outstanding men who made the greatest effort and sacrifice to reach these ends. Such a list includes Dr. Richard Douglas, Dr. J. A. Witherspoon, Dr. Duncan Eve, Dr. G. D. Savage, Dr. W. L. Dudley, Dr. O. H. Wilson, Dr. Lucius Burch, Dr. Richard Barr, and many others. And yet I have to say that but for the vision and untiring effort of one other man—and he is not a physician—but for him we would not be here tonight, our Medical School would probably not exist, and the southeast area of our campus would still be especially noted for the iron gate and its weeping willow tree. I refer to Chancellor Kirkland. But for him, we would not be here tonight and Nashville and Vanderbilt would have a minor—if any place at all—in medical teaching. I can not pay him a greater compliment, or acknowledge, on our part, a greater debt of gratitude. . . ."

Five years earlier upon the occasion of a dinner in honor of Dr. W. S. Leathers, then Dean for 3 years, Dr. Witt commented,

"We whose interest in and love for Vanderbilt go back more years than we care to acknowledge; we who contributed our time and knowledge of medicine to a whole generation of students may be pardoned for entertaining a sense of fear and anxiety when the school underwent such a radical but necessary reorganization. We were jealous for the ethical standard that had existed both in teaching and in the practice of medicine in our country. It is a great pleasure to me to know that under Dr. Leathers' wise leadership our school stands for scholarship and thoroughness in our instruction, but even more its purpose is to send out physicians who will be true to the heritage of service handed down to them by a long line of eminent practitioners."

And at a dinner on February 14, 1951 in honor of Dr. Witt he included in his response, the comment.

"And when the needs of the Medical School were greater and greater, and the income was less and less equal to the needs of the situation there came offers of help from the Carnegie Foundation and the Rockefeller Foundation. Offers conditioned on two fundamental changes: (1) All must resign their position without condition* and (2) the University must transfer the Medical School to the West Campus. . . . From 1925 to date we have had a Medical School of which we are proud and from all we can see, it is on a permanent basis. What a difference the atmosphere is from the early nineteen hundreds. . . . We lost sleep and we lost money in those days, but we gained character . . . we bridged a chasm I hope may never form again."

These brave words of Billy Witt describe

*The story of the stormy session Chancellor Kirkland had with the medical faculty is dramatized by Mims⁶ (pages 221-222).

the vision he and some others, especially Dr. Lucius Burch, Dean of the "old" school for a decade, had when faced with the hard facts of giving up what almost amounted to a life's work to permit a new way of life. Divorce may be accepted for the good of a family, but will in most instances be accompanied by regrets and bitterness—human attributes understandable to every practitioner of medicine. Among those dedicated and most competent men professionally, and excellent teachers as well, who resigned in a body there were some who, embittered, severed all relationships with the school, even though they held a title on the clinical faculty. Others contributed much in teaching of varying degree and effectively for some years, continuing as heads of specialty divisions particularly, since the new full-time faculty staffed only the major disciplines.

A fortuitous experience of my professional life had been five years in practice remote from an academic environment, which gave me an understanding and appreciation of the integrity, and of the dedication to patients and community which are the attributes of the overwhelming majority of physicians irrespective of whatever professional shortcomings they may have, and not unmindful of the excellent competence of the particularly outstanding men of the profession in almost every community.

It was my good fortune to arrive in Nashville at the midpoint of the half-century with which we are concerned. The Nashville Academy of Medicine met weekly in its hall in the Doctor's Building. I continued in a custom established early in my career, to be a regular attendant at the meeting of the county society, then the main channel of continuing education. It was at these weekly meetings that I learned to know and to respect the elder clinicians as they criticized papers presented, observations made, and conclusions drawn,—criticisms, acrid and searching, admittedly with personal rivalries showing through at times. They were competent, observing and voluble men. And there were too, woefully lacking today, scholars among them who as an extra fillip could twit essayists upon Latin and Greek derivations, and historical quotations as in-

correct or plagiarized. To catch their boldness in the operating room, their keen observations, and their reasoning, I suggest leafing through the pages of the *Journal of the Tennessee State Medical Association* as I have done, between 1910 and 1925, especially the published reports of the Academy meetings. These men who were the "old" Vanderbilt and thereby provided the nidus for the "new" were, broadly speaking, men of excellence.

History demands that I pause in this narrative to comment upon facts understood by my generation, but lost upon succeeding generations. I speak of the outstanding clinical teachers in medicine of the first quarter of the twentieth century in terms of their personal characteristics,—individualists, often egotistical in their competence, frequently dogmatic, not uncommonly flamboyant—in short, male prima donnas. Graduate education by today's definition was nonexistent. This generation of clinical teachers, whether a Kocher, Lister, Mayo or Halstead, or an Osler or Herrick, or the Nashville teachers, all were in a way self-made and rose as cream to the top because of their skills, observations and experiences rolled into that package known as *clinical judgement*. They built on the advancing knowledge contributed by the Pasteurs, Kochs, Virchows, and others of the preceding century. The surgeons were by necessity bold innovators in new operations or modifying those of others—their successes expressions of clinical judgement. The medical men were measured by diagnostic acumen gathered from the medical history and an examination limited by four senses, and by a fine balance in treatment between a limited therapeutic armamentarium and Dame Nature—again expressions of clinical judgement. The great clinical teachers of those days in Nashville or elsewhere could not fall back upon clinical research or the laboratory for support. Small wonder they were an unusual breed who rose above the shoulders of their colleagues, and that their discussions at society meetings were dogmatic, as debates in a sense, a pitting of one's observations and experiences against those of another.

The catalogue of 1912 indicates the Van-

derbilt faculty recognized changes from the "older method of teaching," probably reflecting Flexner's recommendations. Thus, "No course of instruction by didactic lectures, however learned, can take the place of laboratory training and clinical experience at the bedside where students are brought into close personal relations with each professor and instructor, thereby inciting them to active practical work and a higher degree of proficiency."

Therefore, clinics in the classrooms and operating amphitheater and quizzes were held daily, and hospital ward rounds and dispensary experience were had in certain fields. Here the teaching luminaries in surgery were Doctors Barr, Haggard, W. A. Bryan and later Leonard Edwards, of whom I was to hear Dr. Barney Brooks comment that he was an abdominal surgeon unsurpassed. All excellent teachers and honored by their students. Doctors John Wither- spoon, William Witt and later Owsley Manier in Medicine and Owen Wilson in pediatrics⁴ were singled out as outstanding



Fig. 3

(Left to right) Drs. Lucius Burch, William A. Bryan, Perry Bromberg, William D. Haggard.

teachers. Too, Dr. Billington in orthopedics, Dr. A. N. Hollabaugh in obstetrics, Dr. Bromberg in urology, and Dr. Lucius Burch in gynecology are mentioned repeatedly by students of those days. (Figs. 2, 3, 4) The specialties had their complement of teachers. All of these held forth or demonstrated their skills before the students in the City Hospital or the Vanderbilt University Hospital. And these were the few to whom so much was owed by so many.

Though I knew many of these men from afar at meetings of the Nashville Academy

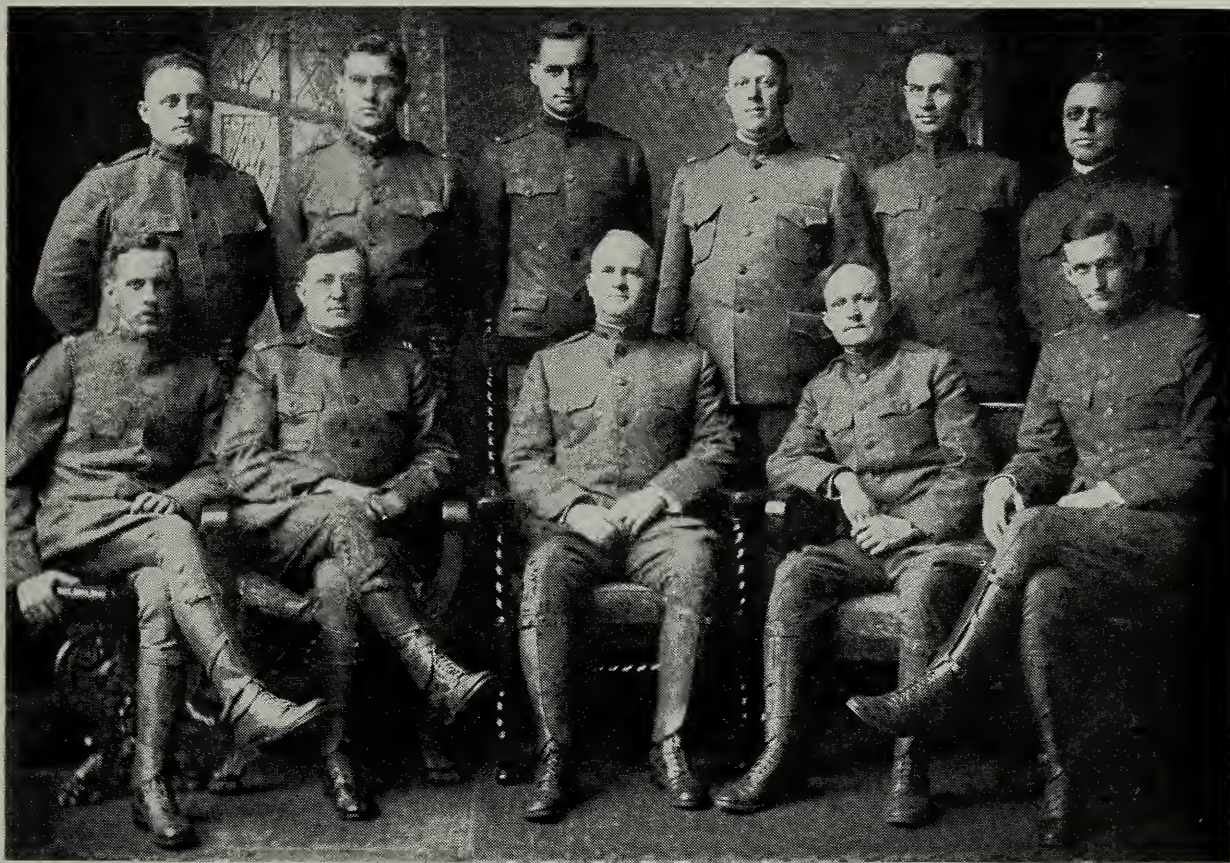


Fig. 4

Vanderbilt Hospital Unit—World War I. (Left to right) Back row: Lieut. R. R. Brown, Lieut. W. G. Kennon, Lieut. Owsley Manier, Capt. H. M. Tigert, Lieut. T. D. McKinney, Lieut. E. M. Fuqua. Front Row: Capt. A. W. Harris, Capt. W. M. McCabe, Major R. A. Barr, Major W. H. Witt, Capt. W. C. Dixon.

of Medicine, I have presumed to count among my acquaintances and friends Doctors Billie Witt, J. Owsley Manier, Owen Wilson, O. N. Bryan, Al Harris, Howard King, Jack Witherspoon, Lucius Burch and Leonard Edwards. These names appear on the faculty rolls of the school catalogues 1912-24, and continue into the 1925 catalogue,—the first of the “new” school. They and the others whom I did not know well personally have been described to me as outstanding teachers by certain of my good friends—by Dr. George Carpenter, here for the 50th Reunion of his class, by Hollis Johnson (1921), by David Hailey of the last class (1924) graduated on the South Campus, and by David Strayhorn of the last class to enter on the South Campus. Too, they sensed and have told me of the emotional turmoil which accompanied the birth of the “new” Vanderbilt and the move to the West Campus.

I have spoken of the skilled, competent and knowledgeable men, and their vision and originality, who provided the foundation upon which today's Vanderbilt was built. I was curious as to where they employed their skill and knowledge.

You know the South Campus and what remains of it. By the “teen years” of this century the adjacent homes, formerly of the socially elite, were now those of lesser estate, among them rooming houses for medical and dental students, others offering boarding tables. Downtown meant a trolley ride or a walk. Robinson described the South Campus as he saw it in 1920, anticipating deanship of the “new” school. Of the half dozen buildings he found,

“one had been built as a college in about 1850, another was occupied by Vanderbilt Dental School, and a third had been built to house the University of Nashville Medical School which had been taken over by Vanderbilt. The original Vanderbilt Medical School building, about two blocks away, had been converted into a small hospital and dispensary which, with the Nashville City Hospital not far away, provided the facilities for clinical instruction.”

He commented too upon the unfinished Galloway Memorial Hospital (a portion of which was predicted, in the 1912 school catalogue, to be ready for use in 1913), uncompleted because of funds, and still stood windowless when I arrived in Nash-

ville, finally finished to house the Nashville City Health Department in the mid-forties.*

One can thus picture a rather drab environment where the medical students studied, worked and played, except for the Nashville boys who needed to walk across town to classes and clinics.

Reminiscences of my friends, medical students of those days—days of the Volstead Act—recall confrontations with the city police, University administrators and neighbors of the South Campus, echoed even a quarter of a century later in the halls of the City Council. The high jinks and exuberance of medical students of that era, whether at Vanderbilt or elsewhere, were acted out physically. Celebrations of football victories between the medical schools of Nashville, or intramural battles between the medical students of the South Campus and the college students of the West Campus, even to a riot in a downtown theater precipitated by the assignment of the principal role in a Glee Club production, at least did not end in laying siege to, or burning buildings of a university. It seems that the medical faculty always “covered up” for their students in confrontations with the police or the Chancellor.

Clinical instruction was based on the City Hospital and the University Hospital, both near the South Campus. The University Hospital of 100 beds was the major teaching unit, and the catalogue of 1912 describes its physical appointments and the teaching arrangements, the supervised clinical work—medical and surgical in the dispensary, examinations of blood, urine and sputum, administration of anesthetics, and four to six obstetric home deliveries by each student.*

There remain several important items related to the “old” Vanderbilt. Pursuant to

*The bitterness among the medical profession which grew out of the establishment of the “new” school was enhanced by the Methodist laymen who reacted strongly to the abandonment of the unfinished hospital named in honor of Bishop Galloway and built to a point by Methodist funds.

*More details concerning clinical teaching in these hospitals, in the private infirmaries and St. Thomas Hospital, are held in the hope of another story at another time.

the recommendation of Flexner that Vanderbilt "employ full-time teachers in the fundamental branches," Chancellor Kirkland obtained in 1913, \$200,000 for a laboratory building, and an \$800,000 endowment for the medical school. Thus, full-time faculty in anatomy, physiology and bacteriology were made possible, of whom two later incumbents Doctors Charles King and Sam Clark transferred to the "new" school. (Two others attached to the basic sciences who transferred to the "new" school recall fond memories in the students of that time, —Ossie Crockett for a time, keeper of the key to the alcohol, and Bill Gunter who regaled the students with tales of the "grave snatching" days.) In 1915, Mr. William Litterer, a Nashville merchant purchased the building of the earlier University of Nashville Medical School and presented it to the medical department of Vanderbilt for bacteriologic research. His son, William Litterer, is listed among the faculty of the 1912 catalogue as Professor of Histology, Pathology and Bacteriology, and in the 1924 catalogue as Professor of Bacteriology. (One can merely refer to his contributions in the preparation of rabies vaccine, the early use of old arsphenamine, pioneering efforts in tuberculin testing, and the use of the Calmette vaccine.)

Another item in medical education in Nashville, and of which I previously had been unable to learn details, was revealed in the 1912 school catalogue. Under the heading of the *Vanderbilt Medical Library* one reads:—

"One of the recent additions is the unusually complete medical library which was donated to the University by the Nashville Academy of Medicine. The library is open to the students of all classes daily and contains more than four thousand volumes, numerous pamphlets and complete files of all the leading periodicals. . . . The librarian is kept on duty throughout the day and the efficiency of this very valuable library is enhanced by a complete system of double indexing enabling the student to find his subject matter with the least possible delay. It occupies a commodious and well lighted room and students are urged to make use of it free of any cost whatsoever."

The "New" Vanderbilt

I need not repeat the often-told story of Kirkland's success, beginning in the late

teens, in obtaining the monies from Carnegie and the General Education Board to develop the "new" School. The opening of the "new" School and the move to the West Campus are known to you either because you were part of it, as student or faculty, or it had occurred so recently that you were aware of what it entailed, particularly in the aftermath of a troubled and partially divided profession, all of which fortunately faded, as I watched, with passage of the years.

What remains for the assignment I have set for myself is to sketch how Vanderbilt continued to contribute to this 50 years of Nashville Medicine. I approach this from a different viewpoint than did Dr. Youmans four years ago. He documented and interpreted clearly Vanderbilt's contributions in their widening breadth—more national than local—its contributions to, and influence upon medical education and investigation through its faculty and graduates on a nationwide scale. I review a quarter of a century until my retirement with focus upon the immediate community.

Upon occasion one hears the critical question—just what has Vanderbilt done for the Nashville community? Though it may seem intangible, the School's greatest contribution *locally* has been the maintenance and a modern extension of Nashville as a medical center. For 150 years Nashville has been and continues to be an outstanding medical center, measured as all medical centers are by the practitioners who supply the medical care. Dr. Youmans¹ pointed up the same thought when he said, "Indeed, in my opinion, in the years 1927 to World War II (the span of his active clinical work) the Vanderbilt Medical School possessed the best volunteer faculty of any medical school in the country." In the catalogue of 1960, the year ending our half-century I found listed 155 clinical faculty who were Vanderbilt graduates, almost all from the "new" school. Of the additional 62 on the clinical faculty, the majority had been attracted to Vanderbilt University Hospital for specialty training. These 217 fully trained specialists, devoting their major energies to private practice, provided potentially unsurpassed medical care. This

represents then the inestimable and major contribution of Vanderbilt School of Medicine to the care of the people of Nashville and Middle Tennessee. The second greatest contribution has been the support, by a select full-time faculty, of the continuing education of Nashville's superb specialists through consultation and availability of "know-how" in new techniques of diagnosis and treatment,—tangibles and intangibles which defy measurement. Certainly as of 1960 Nashville medicine was Vanderbilt medicine—those who provided care were the product in large part of undergraduate and graduate education in its Hospital, their continued competence and excellence being assured by constant contact with investigators in the forefront of medical knowledge—thereby "bringing the laboratory bench next to the bedside," an ideal as described by one writer.

Vanderbilt's contributions to the care of the medically indigent or handicapped, whether in its Hospital Outpatient Clinics, the Nashville General Hospital, the Junior League Home or Central State Hospital, would need to be recorded in millions of dollars, a joint venture of its physical facilities, its full-time faculty and the uncounted manhours of its clinical faculty.

Vanderbilt's contributions to community health have been to a large extent in terms of cooperation. Long before the "new" School opened, Tennessee's medical profession had been exceedingly active in supporting public health, beginning with its first and unsuccessful petition to the legislature in 1875. Assigned to the State Board of Health by the Rockefeller Sanitary Commission in 1910 was Dr. Olin West, who devoted full time to the eradication of hookworm disease in Tennessee, and laid the foundations of rural sanitation and school hygiene, and later to become Secretary to the Board. (He was elected president of the AMA in 1947.) The "new" School found in Dr. Eugene Bishop, Commissioner of Public Health, a man of unusual ability. Dr. John Lentz, a graduate of Vanderbilt in 1906, had established one of the outstanding county health departments of the country, recognized as such repeatedly by the American Public Health Association

and others. The Vanderbilt Department of Preventive Medicine and Public Health thus found in 1925 a fertile and well plowed field in which to carry out one of Vanderbilt's commitments, the furtherance of prevention of disease in the South through education. Dr. Leathers and his staff were welcomed into cooperation by Dr. Lentz, and by Dr. Bishop and those who succeeded him, both in undergraduate education and for the development of the graduate education of public health officers in which Doctors Alvin Keller and Henry Meleny had such a large role. This development, too, offered a foundation for the very active program of graduate education of public health officers and nurses in Syphilis Control and the demonstration of epidemiologic methods during the years of 1937 to 1944, in collaboration with Dr. Lentz of the Davidson County Health Department and Dr. T. V. Woodring, Director of Health of the City of Nashville. Thus, Vanderbilt contributed much to community health in Tennessee, but did so in an environment of sophisticated public health practices at the level of the State and local governments.

Though I have attempted to show that the "new" School has influenced the medical community of Nashville profoundly, historical accuracy forces me to comment upon the tardiness of its faculty to share with Nashville doctors their experiences. Was this a response to a sense of being unwelcome! In contrast to the faculty of the "old" school who *were* the Nashville Academy of Medicine, the faculty of the "new" school did not immediately contribute toward continuing education of the older and established practitioners. To learn what the "new" faculty may have offered I searched the old files of the Tennessee Medical Journal up to 1936, when I arrived in Nashville. The first paper published from the new faculty was by Hugh Morgan in 1926 on subacute bacterial endocarditis. A paper appeared each in 1928 and 1929. Five papers were published in 1932, 3 each in 1933 and 1934 and 4 in 1936. Rather than the state journal the faculty used the *Southern Medical Journal* for publication of its clinical papers,—from half a dozen to a dozen papers being presented at its meetings, and published annually, rep-

resenting possibly a philosophy more of a regional commitment than a local one.

Since this address today deals with Vanderbilt, mainly in a half-century of Nashville medicine, attention must be directed to the support, both moral and in professional expertise, which Vanderbilt has given Meharry Medical College.

The Flexner Report in reviewing the seven existing medical schools for Negroes (three of them in Tennessee) recommended only two for continuance—Meharry and Howard. The Medical Department was added to Central Tennessee College (later Walden University) by the generosity of the three Meharry brothers in 1879. As is well known, the majority of Negro physicians of the country owe their education and training to Meharry Medical College, another of the factors which had made Nashville a medical center, and which will contribute proportionately ever more, in coming years. Contributions of Vanderbilt to Meharry in the professional and educational area were in the main by our clinical faculty who have given inestimable numbers of hours and much energy over the years, although we of the full-time faculty also have contributed our bit on many occasions. In 1937-38, we invited to assist in our Medical L (syphilis clinic) the phy-

sicians, social workers and nurses who were to establish a similar teaching clinic at Hubbard Hospital. Dr. E. Gurney Clark and Miss Anne Sweeney then visited its Clinic for aid and advice, and I recall my own visits as well, and my annual participation in didactic and clinical teaching with the undergraduate students in this topic.

Summary

The story of 50 years of Nashville Medicine has been in essence, has it not, the story of men, for as Emerson wrote:—

"There is properly no history, only biography."

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EFFECT OF BURNS ON THE HEART: Vivay V. Joshi, JAMA, 211:2130, 1970

Analysis of clinicopathologic data of 7 fatal cases of burned children show that congestive heart failure was a major factor in their deaths. No detailed account of cases of this type has been found in the literature. Patients had infected burns prolonged clinical course with anemia, episodes of hypokalemia and hyperkalemia systemic hypertension, and as one would suspect, hypoproteinemia. The possibility of an overload of fluid administered intravenously was ruled out. At autopsy all 7 patients showed cardiomegaly with inflammatory and degenerative lesions in focal areas of the myocardium. The outstanding pathologic findings were cardiomegaly, congestive heart failure with pulmonary and hepatic congestion, and serious effusions which were present in 6 of the seven cases coming to autopsy.

Laboratory data, in addition to lowered values of serum potassium levels, showed an occasional BUN level above normal, although serum creat-

inine levels remained consistently within normal limits, and there was no evidence of overt renal failure.

Microbiologic aspects of these cases demonstrated the presence of *Pseudomonas bacilli*, most frequently. Leukocytosis and positive cultures from burn sites indicated that the organisms produced infection and not merely contamination of the wounds. *Staphylococcus aureus* was frequently isolated from blood culture.

It has always been accepted as good practice to replenish the loss of blood proteins in the treatment of burns and to maintain a normal status of nutrition. Findings in these cases lend support to this regimen. These observations should alert one to the possibility of congestive heart failure in burns of children; congestive heart failure may also be a major factor in the mortality of burned children having a long survival time, and may explain the fairly common observation of unexpected, sudden death of children who appear to be on the road to recovery following burns. (Abstracted for the Middle Tennessee Heart Association by R. C. Kash, Lebanon, Tenn.)

STAFF CONFERENCE

City of Memphis Hospitals*

Sheehan's Disease

DR. STEWART A. FISH: Dr. Robert McIntosh will present the case history of the patient which will form the basis for our staff conference today.

DR. ROBERT E. McINTOSH: A 31 year old gravida 8, para 5, ab. 3 Negro woman, was first admitted to The City of Memphis Hospitals in 1966 because of progressive weakness and a history of amenorrhea since the birth of her last child in 1958. The patient complained of generalized weaknesses, cold intolerance, sleepiness, sluggishness, loss of pubic and axillary hair, diminished libido and appetite, and increased darkening of the skin. During the week before admission she was so weak and sleepy she stayed in bed and slept almost constantly. Despite a poor appetite, weight loss was not significant.

Past History. The patient had severe uterine bleeding for 3 days after delivery by a midwife in 1958. The infant was born alive but lived only momentarily. The patient was subsequently admitted to another hospital and given 2 units of whole blood which raised the PCV from 17% to 29%.

Physical examination in 1966 demonstrated a BP of 104/82 and P of 98/minute. There was thinning of the lateral one-third of the eyebrows, absence of pubic and axillary hair, atrophic breasts, puffy eyes, slow deep tendon reflexes, dry skin, and increased skin pigmentation (Fig. 1). The patient's speech and mentation were slow. Pelvic examination showed a small uterus and cervix. The vaginal mucosa was pale and the cervix was noted to be flush with the vaginal vault.

Laboratory tests of thyroid function included a PBI which was 3.0 mcg/100 ml (normal 4-8 mcg), and a 24 hour I¹³¹ uptake over the thyroid gland of 19% (normal 15-45%). Following 3 days administration of bovine thyrotropin (5 units/day IM) the PBI rose from 3.0 mcg to 5.4 mcg/100 ml.

Laboratory tests for the integrity of the pituitary-adrenal axis revealed a baseline 24 hour urine 17-ketosteroids (17-KS) of 3.0 mg (normal 5-15 mg) and a baseline 24 hour 17-ketogenic steroids (17-KGS) of 6.1 mg (normal 5-18 mg). During, and following, the administration of metyrapone (750 mg orally every 4 hours x 7 doses) there was no increase in the urine 17-KS or 17-KGS; however, the administration of 50

units of aqueous ACTH IV over 8 hours did cause an increase in the 24 hour urine 17-KGS



FIG. 1. Photograph made before therapy demonstrating the absent pubic hair and the atrophic breasts. Note the lack of cachexia.

*From the Division of Reproductive Medicine, Department of Obstetrics and Gynecology, University of Tennessee College of Medicine, Memphis, Tenn.

to 34 mg, and the 24 hour urine 17-KS rose to 5.7 mg.

The 24 hour urine follicle stimulating hormone level (FSH) measured by the bioassay technique was less than 6 mouse units (normal 6-50 mouse units).

The patient was diagnosed as having hypopituitarism with secondary hypothyroidism, secondary hypoadrenocorticism, and hypogonadotropic hypogonadism on the basis of the findings of the physical examination and laboratory tests. She was discharged from the hospital on hydrocortisone 20 mg day and desiccated USP thyroid $\frac{1}{2}$ grain/day to be followed in the Endocrine Clinic with plans to gradually increase the dose of thyroid hormone. She was seen in the Gailor Clinic a few times afterwards but was lost to followup in January, 1967.

The next record we have of her is an emergency room visit in July, 1969, at which time she was admitted because of an undiagnosed infectious disease. It was found that she had not been taking her medication and that she was markedly myxedematous in appearance (Fig. 2). Shortly



FIG. 2. The myxedematous facial appearance before treatment.

after admission to the hospital she went into shock due to gram-negative septicemia and adrenal crisis. Her T. was 104°F at this time. She responded quite dramatically within the next 24 hours to antibiotics, electrolyte replacement, and intravenous hydrocortisone. She was given isoproterenol hydrochloride to maintain her blood pressure. There was a dramatic improvement in her condition following the administration of these agents. The dose of hydrocortisone was gradually reduced over the next 3 days, and she was discharged from the hospital on hydrocortisone, 20 mg every morning and 10 mg every evening, levo-thyroxine 0.05

mg/day and a combination-type oral contraceptive agent. The dose of thyroxine was gradually increased at subsequent clinic visits to 0.15 mg/day. She had withdrawal uterine bleeding with the oral contraceptive agent. The dose of thyroxine was gradually increased at subsequent clinic visits to 0.15 mg/day. The patient has continued to improve on this therapeutic program. She now appears and feels more energetic and is brighter mentally (Fig. 3).



FIG. 3. The brighter and more alert facial appearance only one month after treatment was begun.

DR. FISH: Are there any questions at this point about the patient's history?

DR. WINFRED WISER: Was there lactation following her last delivery?

DR. McINTOSH: There was no lactation following the delivery in 1958.

DR. FISH: The point you are making is that the absence of lactation was very early evidence that hypopituitarism had developed following the delivery. How soon postpartum might one see symptoms of pituitary insufficiency when hemorrhagic shock has been associated with delivery?

DR. JAMES R. GIVENS: It is highly variable. Symptoms and signs may become manifest as long as 10 years afterwards. This patient probably lived in a hibernation-type existence for sometime before the hypopituitarism was diagnosed. Once an individual becomes hypothyroid they are less alert and are not as likely to seek a physician's help. Some do not lactate im-

mediately or re-grow pubic hair after the perineal preparation done at the time of delivery. Others may go months or years, before showing all the symptoms and signs of hypopituitarism.

DR. FISH: I think it is interesting that we have a patient who presented originally with amenorrhea. One would ordinarily consider all the possible causes of amenorrhea, and this patient instead of having hirsutism had the opposite finding of complete loss of pubic and axillary hair. We do see partial loss of scalp hair occasionally following delivery or after a stressful situation but rarely hair loss on other parts of the body. The etiology of pregnancy alopecia is not really clear, but it does occur. Dr. Givens, would you give us your analysis of this particular case?

DR. GIVENS: Sheehan's disease is defined as postpartum necrosis of the pituitary gland with resulting hypopituitarism. The anterior pituitary gland and very uncommonly the posterior lobe is involved. Sheehan's disease is the most common cause of nontumorous hypopituitarism. Pathogenesis has been a source of controversy. Dr. Sheehan attributed the basic problem to arteriolar spasm associated with shock. The vessels involved are those in the hypothalamus that supply blood to the portal vessels which nourish the anterior lobe of the pituitary gland. After the shock state is corrected, hemorrhagic involvement of the anterior lobe may occur. There is a gross correlation between the degree and length of shock and the degree of hypopituitarism and how quickly symptoms are produced. The result is a diminution in the secretion of the hormones of the anterior pituitary gland. These include thyrotropin (TSH), adrenocorticotrophine (ACTH), follicle stimulating hormone (FSH), luteinizing hormone (LH), prolactin and growth hormone (GH). The symptoms and signs produced are the result of a decreased or absent secretion of hormones from the target glands which are dependent upon anterior pituitary hormones. Thus, a deficiency of TSH leads to hypothyroidism, a deficiency of ACTH produces hypoadrenocorticism, a deficiency of LH and FSH lead to hypogonadism, a deficiency of prolactin prevents postpartum lactation. The symptoms and

signs then are due to decreased blood levels of thyroxine, hydrocortisone, estrogens, progesterone and prolactin.

In the most severe cases, symptoms and signs are produced by deficiency in all of the target endocrine organs. In less severe cases, there may be only a deficiency of FSH and LH with amenorrhea being the only problem.

The deficiencies may not all become manifest simultaneously. It is not uncommon for amenorrhea to develop first followed later by hypothyroidism and/or hypoadrenocorticism. It is generally acknowledged that the gonadotropins are usually the first hormones to become manifestly deficient in the course of the development of Sheehan's disease; therefore, absence of lactation followed by amenorrhea are usually the initial complaints. This was true of the case presented today. This lady did not develop overt hypothyroidism until some time after the insult to her pituitary gland. Frank hypoadrenocorticism did not develop until the stress of an infection precipitated it some 9 years after the onset of amenorrhea. Apparently sufficient ACTH was being released from her pituitary gland to maintain an adequate secretion rate of hydrocortisone under nonstressful circumstances but a diminished ability to increase the secretion of ACTH during the stress of a severe infection. The result was the development of shock which responded dramatically to intravenous hydrocortisone and fluids.

I would like to briefly discuss the laboratory tests involved in making a diagnosis of Sheehan's disease. The first approach should be to assess the functional state of the target endocrine glands, i.e., to determine if there is hypothyroidism hypoadrenocorticism, or hypogonadism. If one, or more, of the target endocrine glands are underactive, one must next determine if the underactivity is the result of primary disease of the target endocrine gland or secondary to a diminished output of the appropriate trophic hormone from the pituitary gland. This is accomplished by measuring the activity of the target gland before and after stimulation with the appropriate pituitary trophic hormone. In the case of the thyroid gland one can measure

the PBI or I^{131} uptake over the thyroid before and after thyrotropin (TSH) administration. If the PBI and I^{131} are low before TSH administration and then are significantly higher after TSH administration, the diagnosis of hypothyroidism secondary to pituitary deficiency of TSH can be made. Primary hypothyroidism is ruled out by the response to the administration of TSH.

A similar approach should be taken in evaluating the pituitary-adrenal axis. If the appropriate urine or plasma steroids levels are subnormal and are not increased following the parenteral administration of ACTH, the diagnosis is primary hypoadrenocorticism or Addison's disease; however, if there is an increase in the appropriate steroids after ACTH administration, the problem is one of secondary hypoadrenocorticism due to an inadequate output of ACTH from the pituitary gland such as is found in Sheehan's disease.

The functional status of the pituitary ACTH secreting mechanism can be more directly evaluated by the metyrapone test. This compound produces a partial pharmacologic block in the last biosynthetic step in the production of hydrocortisone by the adrenal cortex. In the normal individual, this pharmacologic block in the adrenal cortex production of hydrocortisone is compensated by a marked increase in the release of ACTH from the pituitary gland. The net result in the normal person is an increase in the production rate of the steroid compounds that are in the biosynthetic pathway behind the site of the pharmacologic block. The steroid that increases the most is Compound S which is measurable as a 17-hydroxycorticosteroid (17-OHCS) or as a 17-KGS. Thus, the administration of metyrapone to a normal person results in a 3 to 5 fold increase in the 24 hour urine 17-OHCS or 17-KGS. An individual with a pituitary that is incapable of secreting ACTH, however, will have a decrease or no response in the urine steroids with metyrapone administration. This was true of our patient under discussion today. Other individuals with a decreased reserve of ACTH show a suboptimal response of the urine steroids with the administration of metyrapone.

The simplest way to differentiate primary ovarian failure (menopause) from secondary ovarian failure (hypopituitarism) is to measure the urine or blood level of FSH or LH. If the hypogonadism is the result of primary ovarian failure, the gonadotropin secretion rate from the pituitary gland is increased and the level in the urine and/or blood will be high; however, if the hypogonadism is secondary to pituitary disease the level of gonadotropins in the urine and blood will be low. This was the case with the patient presented here today with Sheehan's disease.

The physician must be careful and not overlook a pituitary tumor when the diagnosis of hypopituitarism is made. All patients suspected of having this diagnosis should have appropriate skull x-rays to clearly define the size of the sella turcica. If the sella is enlarged, visual fields should be obtained. It is of interest that some patients with Sheehan's disease have a small sella turcica. It is not clear whether the sella size decreases after the pituitary infarction or if the small sella was present before the necrosis. If the latter is the case, it might have important implications in the pathogenesis of the condition since the pituitary gland normally increases in size during pregnancy.

Anorexia nervosa is a condition which can be confused with hypopituitarism in the female. These individuals are usually amenorrheic, have low urine steroid values, and complain of weight loss; however, unlike the patient with Sheehan's disease they do not lose pubic or axillary hair, are nervous rather than phlegmatic and have normal levels of gonadotropins if they are premenopausal. These individuals are emotionally disturbed and are not suffering from a primary endocrinopathy of the pituitary gland. Severe malnutrition, however, can apparently result in mild states of functional hypopituitarism.

The most logical way to treat Sheehan's disease would be to administer the pituitary hormones that are deficient; however, this is not practical for the following reasons: (1) pituitary hormones are proteins which are inactivated by the digestive juices; therefore, parenteral administration would be necessary; and (2) long term par-

enteral administration of animal pituitary hormones to humans would cause the production of antihormones. Thus, the most practical mode of therapy is the oral administration of hormones of the target endocrine organs which have been documented to be underactive.

In the treatment program for Sheehan's disease it is important not to give thyroid hormone alone when there is evidence of even mild adrenocorticism. Thyroid hormone increases the metabolic clearance rate of hydrocortisone. The correction of the hypothyroidism without the simultaneous administration of hydrocortisone can result in adrenal crisis and shock. If there is secondary hypothyroidism and hypoadrenocorticism (or even a decreased response to metyrapone), the patient should receive both thyroid hormone and hydrocortisone simultaneously. The question always comes up as to whether these individuals need an additional salt retaining steroid such as the Addisonian patient requires. As a rule, it is not necessary to administer a salt retaining steroid because the renin-angiotensin system is intact in the hypopituitary individual and the zona glomerulosa is functioning. Where there has been long standing deficiency of ACTH, however, the zona glomerulosa can become atrophic and a sodium retaining agent such as fluorohydrocortisone may have to be given. As far as the deficiency in the sex steroids, this patient was cycled on a combination-type oral contraceptive agent and had withdrawal menstrual bleeding. I think the oral contraceptive agent has a sufficient amount of estrogen and progesterone to induce a normal state as far as the genital organs are concerned. These individuals remain sterile and the administration of the gonadotrophins such as Pergonal may be indicated in the future if another pregnancy is to be attempted. Theoretically, clomiphene citrate would not be effective in inducing ovulation.

DR. FISH: What changes occur in the pituitary gland during a normal pregnancy? Is the pituitary gland more susceptible to infarction during circulatory shock if the individual is pregnant?

DR. GIVENS: In the normal nonpregnant state, the average pituitary gland

weighs about 0.5 gm. During pregnancy, the gland may weigh up to 1.0 gm; therefore, it may double its size during a normal pregnancy. It becomes succulent and quite vascular. The gland of the pregnant person is more susceptible to damage during shock because of its increased vascularity and size.

DR. FISH: Are there any other conditions associated with delivery other than hemorrhagic shock that might be implicated in causing hypopituitarism?

DR. GIVENS: Yes, we have seen a case of eclampsia without excessive blood loss at the City of Memphis Hospitals in which the patient developed Sheehan's disease. I think, therefore, one can say that any condition which produces arteriolar spasm and embarrasses the blood supply to the pituitary gland can cause pituitary necrosis.

DR. FISH: Was the sella turcica normal in size in the case with eclampsia?

DR. GIVENS: No, it was small.

DR. WISER: Do you feel that a specific antigen associated with pregnancy could result in an autoimmune destruction of the pituitary gland?

DR. GIVENS: This brings up a very interesting point. As we know, the placenta produces placental lactogen and chorionic gonadotropin which resemble very closely polypeptides produced by the anterior pituitary gland. Theoretically the mother could become sensitized to these placental agents which could cross-react immunologically with pituitary tissue and produce destruction. There are, however, no good data to support such a theory.

DR. FISH: Dr. Givens, do patients having hypopituitarism show the sympathetic and vasomotor symptoms seen in the normal menopausal individual?

DR. GIVENS: They do not.

DR. WISER: What follow-up would you recommend for a patient who did not lactate after a severe hemorrhage at delivery? Are there specific tests you would recommend at regular intervals or would you wait until she exhibits clinical evidence of hypopituitarism?

DR. GIVENS: Complete evaluation would be indicated in the immediate post-partum period. That is, the metyrapone test, PBI, I^{131} uptake and the serum or urine go-

nadotrophin levels. If these were abnormal, I would begin appropriate therapy. If the patient has a normal response to all these tests, I would wait and observe her closely by repeating these tests to see if she did develop any abnormality in pituitary function.

DR. FISH: What is the mechanism of loss of pubic and axillary hair and maintenance of the scalp hair in an individual like this? Will this individual have a regrowth of her axillary and pubic hair on adequate treatment? In other words, why the selective hair loss in the axillary and pubic areas?

DR. GIVENS: Hair growth is a very complicated situation. One cannot say that the hair growth in the axillary and pubic areas is entirely due to one or more hormones of one particular endocrine gland. In general, pubic and axillary hair are more dependent upon the adrenal androgens and less so upon the sex steroids of the ovaries. Addisonian patients usually lose this hair; therefore, failure to regrow pubic hair after the prep at delivery usually indicates a hypoadrenal state.

DR. FISH: Will this patient's pubic and axillary hair return?

DR. GIVENS: Probably not, since we are not giving her adrenal androgens. The only adrenocortical steroids she is receiving is hydrocortisone.

DR. FISH: Dr. Givens, you stated that in the treatment program for Sheehan's disease the physician should not prescribe thyroid hormone before beginning hydrocortisone because of the danger of precipitating an adrenal crisis. Does one need to exercise the same care in treating primary hypothyroidism?

DR. GIVENS: No, because they have an intact pituitary-adrenal axis and can protect themselves against a more rapid clearance rate of hydrocortisone.

DR. HAL JAMES: Is the use of a combination-type oral contraceptive agent better than a sequential one?

DR. FISH: In this case the agent chosen was a combination pill and we have no objection at all to having this patient on sequential medication. I believe this would represent just the individual clinician's decision rather than any major benefit from

one or the other. Did this patient have any problem with the combination pill, such as breakthrough bleeding?

DR. McINTOSH: Yes, breakthrough bleeding occurred one month after she started the combination-type oral contraceptive agent and it was discontinued for one cycle. Then she was put back on it and, as far as I know, has had no more difficulty.

DR. FISH: I would suggest if she did have recurrent breakthrough bleeding on this particular dose we could utilize a sequential preparation and this may be continued until about the time of the normal menopause. I think Dr. Givens has answered the question that we asked earlier about our patient's reproductive future. As long as she does not have any FSH and LH production she will not ovulate and will not, of course, be able to get pregnant. All we are doing is causing stimulation of the genital organs with the medication we are using and the cycle bleeding is simply physiologic withdrawal and has no effect on the pituitary underactivity.

DR. GIVENS: Another point should be made in relation to therapy. If the patient has any type of stressful situation, a car wreck or emotional disturbance, the hydrocortisone dosage should be increased by a factor of 2 or 3 depending upon the extent of the stressful situation. These patients can go into shock with severe stress on the usual maintenance dose of hydrocortisone.

DR. FISH: Do these patients have any loss of libido? I am sure that during their hypothyroid state they probably do, but on normal maintenance do they have normal libido and sexual responses?

DR. GIVENS: It has been my experience that some patients with hypopituitarism, whether due to a pituitary tumor or spontaneous hypopituitarism never feel quite as well after treatment as they did before the development of the disorder. Even in the male, the administration of testosterone does not in some cases produce the vigor and libido that they had at one time. I think we must not be replacing these patients with all of the hormones they are deficient in by only replacing the life maintaining agents.

DR. FISH: Maybe there would be a role here for testosterone treatment on the basis of an occasional increase of libido that we see in some individuals. Did this individual show any skin pigment changes?

DR. GIVENS: This patient differs from the typical case. In the typical case the

skin gets lighter. This patient became darker for reasons that are not clear.

DR. FISH: Gentlemen, our time is up, and I want to thank all of you for presenting such an interesting and informative case today.

T M A**SPECIAL ITEM****Statement to the House of Delegates****TENNESSEE MEDICAL ASSOCIATION**

EUGENE W. FOWINKLE, M.D.,
NASHVILLE, TENN.*

Fellow physicians I genuinely appreciate the opportunity of reporting to you briefly on Medicaid. If I accomplish nothing else, I do want you to know that I still believe that the private enterprise system is the best way to provide health care to the American citizen. Governmental health programs must be administered, and it is my opinion that they should be administered by a physician, and one who believes in the private enterprise health system of this country.

You must realize, however, that in working within the framework of government, an unbelievable amount of pressure is brought to bear upon me from a multitude of sources. My office is the target of tremendous waves of power generated from the public and reflected through their elected and appointed officials as well as from a variety of divergent vested interest groups not only concerned with the financing of medical care but with other areas such as environmental quality control.

Specifically now, related to Medicaid, I would like to say that in my opinion the program in concept is valid. It is a mechanism for financing needed health services to low income individuals in a manner supportive of the private enterprise system.

This concept was endorsed prior to the enactment of Medicaid in 1965 by practically every major health professional organization in the country including the Tennessee Medical Association. However, a number of things have happened to the Medicaid Program since it was conceived, and a number of changes have occurred in the health system into which it must fit as well as to the health consumer whom it serves. Therefore, in my opinion, the program must be evaluated continuously for its effectiveness and validity.

The Medicaid Program is fraught with a number of serious inherent administrative complexities. First, the program has become unpopular both to the public and to the health profession. A number of State Medicaid Programs have gone bankrupt, and several which have not yet collapsed are producing tremendous tax drains upon state governments involving as much as \$65 per capita expenditure as is the case in California. A handful of professional abuses have occurred and have been much publicized. These and other factors have made the program unpopular.

Probably the most serious administrative problem facing the Tennessee Medicaid Program is the fact that it is locked between a fixed State appropriation with a clear legislative mandate not to over spend that budget on the one hand, and on the other hand federal guidelines requiring rather comprehensive services to about 200,000 Tennesseans with no pre-audit or front end fiscal controls on expenditures. Furthermore, the legislative fiscal review committee had instructed those administratively responsible for the program to

*Commissioner of Public Health of the State of Tennessee, Nashville, Tenn. Statement read on April 8, 1970; Annual Meeting in Memphis, Tenn.

gear expenditures during the first year of the program to a level which will result in a rate of expenditure at the end of the year not exceeding the annual budget for the next fiscal year when projected through that year. Consequently it has been necessary to apply practically all of the breaking power available to us at the start of the program with a gradual release of that fiscal breaking power as experience is gained. I think physicians can probably understand and appreciate this approach better than anyone else because of our generally conservative and cautious financial orientation.

At this point, I can report that the program is running smoothly from the administrative standpoint and provider participation across the State is approaching an adequate level.

Where do we go from here? It is my opinion that we should continue to operate a fairly minimal program from the standpoint of eligibility standards and recipient benefits. While doing this, it is my hope that payments to providers can be quickly adjusted upward to an adequate level. I

believe we will be able to convince the State Legislature and financial authorities that this approach is appropriate.

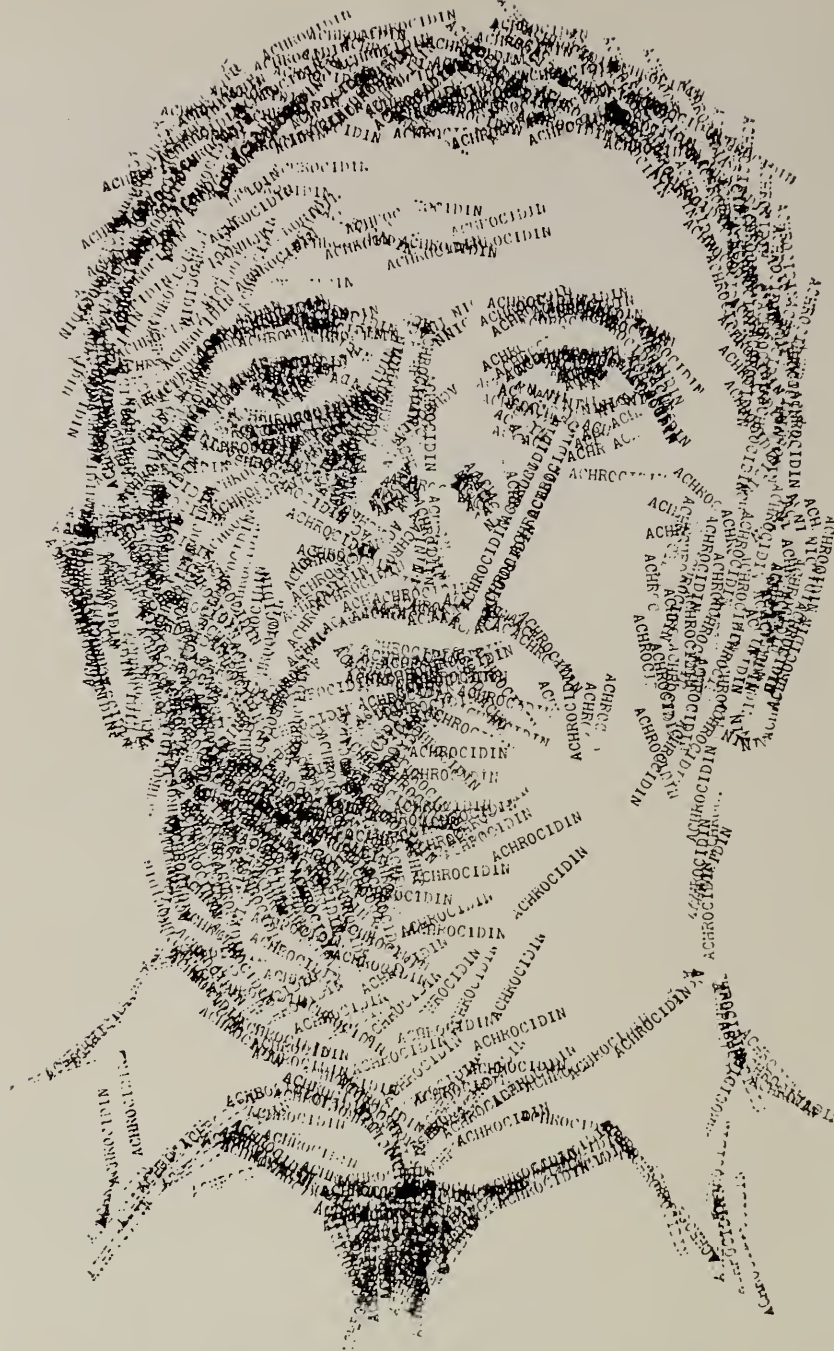
In closing, I want to thank the physicians of this State specifically for two things: 1) even under the fire of public criticism through the mass news media, you continued to provide medical care to low income citizens whether or not you were at the time charging the Medicaid Program for your services. This fact is documented by data which shows that patients were receiving prescriptions for needed medication even during periods when physician billing was low. 2) There is growing physician participation in the program now. This perhaps indicates your desire that this mechanism for aiding in the financing of health care to low income citizens in a manner supportive of the private enterprise system be successful less the voting public replace it with a mechanism far less desirable than Medicaid.

Your individual and collective comments and suggestions on how the Tennessee Medicaid Program can further develop into one of excellence are invited.

* * *

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Precautions: Drowsiness, anorexia, slight gastric distress can occur. In excessive drowsiness, consider longer dosage intervals. Persons

on full dosage should not operate vehicles. Nonsusceptible organisms may overgrow; treat superinfection appropriately. Treat beta-hemolytic streptococcal infections at least 10 days to help prevent rheumatic fever or acute glomerulonephritis. Tetracycline may form a stable calcium complex in bone-forming tissue and may cause dental staining during tooth development (last half of pregnancy, neonatal period, infancy, early childhood).

Adverse Reactions: *Gastrointestinal*—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. *Skin*—maculo-

popular and erythematous rashes; exfoliative dermatitis; photosensitivity; onycholysis, nail discoloration. *Kidney*—dose-related rise in BUN. *Hypersensitivity reactions*—urticaria, angioneurotic edema, anaphylaxis. *Intracranial*—bulging fontanels in young infants. *Teeth*—yellow-brown staining; enamel hypoplasia. *Blood*—anemia, thrombocytopenic purpura, neutropenia, eosinophilia. *Liver*—cholestasis at high dosage.

Upon adverse reaction, stop medication and treat appropriately.



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From the
Executive
Director
E. Ballentine

MEDICAL DIGEST

News of Interest to Doctors in Tennessee

AMA-ERF FUNDS DISTRIBUTED IN TENNESSEE. . . . Tennessee's three medical schools received \$44,983.19 from the American Medical Association's Education and Research Foundation . . . These were contributions made in 1969 to the AMA-ERF. Tennessee's total contributions last year increased more than 20% over 1968 . . . As a result of these efforts, the three Tennessee medical schools will receive a total of \$44,983.19, with the allocations as follows: University of Tennessee College of Medicine—\$23,820.07; Vanderbilt University School of Medicine—\$15,071.66; Meharry Medical College—\$6,091.46. The representatives of the three medical schools accepted these funds at the Public Relations breakfast conducted in Memphis on April 10 during the annual meeting of TMA . . . The PR breakfast, sponsored by TMA and hosted by the Memphis-Shelby County Medical Society, was conducted before some 150 local business, civic and government leaders as guests . . . Again in 1969, more than \$1 million was raised for AMA-ERF. The Woman's Auxiliary to the Tennessee Medical Association had a big hand in this total as they do every year. Only five states raised more money for AMA-ERF than Tennessee, and needless to say these are in the highly populated areas (California, Illinois, New York, Indiana). The total contributed from Tennessee surpassed such states as Michigan, Pennsylvania, Texas and Florida. The TMA Woman's Auxiliary did a monumental job on this important project.

* * * * *

TMA MEMBERSHIP REPORT . . . As of January 1, 1970, the Tennessee Medical Association was made up of 3,079 active dues paying members, 228 veteran members (over age 70); 29 members were in a postgraduate education status, and 19 in military service, for a total of 3,355 TMA members . . . Thirty-six deaths occurred among the membership in the past year. TMA has 2,883 active dues paying members of the American Medical Association and 271 dues exempt members for a total AMA membership of 3,154. This approximates slightly more than 93% of the TMA membership.

* * * * *

SPECIAL TMA COMMITTEE STUDYING MALPRACTICE . . . The Board of Trustees has established an Ad Hoc Committee to study Malpractice and the rising cost of professional liability insurance . . . In the Committee's deliberations at its first meeting, attention was given to the following items: (1) the development of a national, state or local self-insured program for physicians; (2) physician-attorney panels consisting of physicians only; (3) "no-fault" workmen's compensation plans; (4) limited liability plans; (5) removal of the contingency fee for attorneys, and (6) the removal of the "Res Ipsa Loquitur" . . . Recommendations of the Committee were to: (1) Introduce a resolution in the next session of the Tennessee General Assembly directing the Legislative Council to study the spiraling cost of medical malpractice insurance in Tennessee. (2) To determine the feasibility of requiring through a law, for the plaintiff to "put up" a bond when bringing suit against a physician with

the understanding that the bond will be forfeited if the case is found to be frivolous. (3) Discuss with the Tennessee Hospital Association the development of a mechanism of joint arbitration when both a physician and a hospital is involved in malpractice litigation.

* * * * *

CONGRESS MULLS PROPOSALS TO FIX PHYSICIANS' FEES . . . Both Houses of the U.S. Congress are deeply involved in legislation designed to establish fixed fee schedules for physicians, and set maximum charges by hospitals for the Medicare-Medicaid programs . . . Social Security Administration actuaries have reported that Medicare's costs will exceed its income from the Social Security Trust Fund by \$216 million over the next 25 years. Most of the increase is blamed on doctor and hospital charges. HEW's Undersecretary, Mr. John Veneman, has proposed that Medicare and Medicaid be amended to control hospital reimbursement and physicians' fees . . . With regard to physicians' fees, he proposed that for 1971, physicians' fees be limited either to fees presently recognized or to a new prevailing level which would be set at the 75th percentile of the 1969 average customary charges for a given service in an area. Any future fee increases should be tied to an index which would be made up of general wage and price increases in those fields which affect the cost to the physician. Physicians' charges would continue to rise only in direct proportion to the other costs of the physician.

* * * * *

DISTRIBUTION OF HEALTH CARE . . . In an interview with "U.S. News and World Report," HEW's Roger O. Egeberg, M.D., said the nation's number one health problem is the distribution of health care. Asked how soon he expected a universal health insurance system, Dr. Egeberg said, "Doctors will be completely swamped and you would have chaos" if it comes too soon. He added, "I would say it probably would be six or seven years before you could feel that you were anywhere near ready to tackle this, without having a degree of chaos."

* * * * *

AMA PRESIDENT URGES CALM IN DIFFICULT TIMES . . . As criticism of medicine continues in congressional hearings and in the press, AMA President Gerald D. Dorman, M.D., has urged physicians . . .

"To remain calm in these difficult times. The accusations being made against the profession are unjust, and we have reason to be indignant. We must speak out with force, but we have no time for the luxury of unproductive anger. No matter what we do, the medical profession is going to be attacked again and again during the next five or six years, and emotional responses are not going to be effective answers. We must be more resolute and active than ever before. We must meet each accusation squarely, quickly and with facts . . . Set the record straight on every unjust charge."

* * * * *

WHAT'S BEHIND RISING HEALTH CARE COST? . . . An analysis of the Bureau of Labor Statistics during five year period (1964-69) provide several clues as to what's behind rising health care cost. These costs increased 32%, but semi-private hospital room is up 88%. Pushing up hospital charges are wages, catching up after lagging far behind salaries of other workers in other fields with similar qualifications; advances in medical technology and equipment, requiring more employees and often sizeable expenditures. Medicare and Medicaid fueled demand for health services. Where services play dominant role, price changes are greatest.

Public Service

Communications Legislation

Hadley Williams, Public Service Director

TENNESSEE'S PROFESSIONAL LIABILITY RATE ONE OF NATION'S LOWEST . . .

Premium rates for professional liability insurance are hitting new record highs in a vast majority of states. Tennessee's rate is in the lower one-fourth of the fifty states and District of Columbia. Only eleven states have a lower rate than TMA members are entitled to under the TMA Group Insurance Plan and seven of those enjoy only a slight advantage over the TMA rate. California leads all states, according to the Insurance Rating Board, formerly the National Bureau of Casualty Underwriters, the trade association which keeps tab on losses and suggests rate adjustments. The basic rate for \$5,000/\$15,000 Class V coverage for surgeon specialists such as neurosurgeons, obstetricians-gynecologists, orthopedists, otolaryngologists and plastic surgeons in California is \$1,390 while in Tennessee the rate is \$213 for the same coverage. South Carolina has the lowest rate, \$115, followed by Mississippi and New Hampshire at \$125 and North Carolina at \$130. The TMA Group Plan rate of \$213 is \$72 or approximately 25% less than the \$285 rate suggested for Tennessee by the Rating Board. The latest figures for all states are as follows:

Professional Liability Premiums, \$5,000/\$15,000 Basic Single Coverage for Class V Surgeons

California	\$1390	District of Columbia	\$365	Virginia	\$255
Michigan	765	Kentucky	360	Massachusetts ..	240
New York (1) ...	757	Hawaii	360	Delaware	230
Arizona	730	Illinois	355	Maine	220
Florida(2)	657	Pennsylvania	345	Kansas	215
New Jersey	650	Louisiana	335	Tennessee(3) ...	213
Nevada	610	Oklahoma	330	South Dakota ...	210
Montana	545	Georgia	330	Alabama	205
New Mexico	520	Wisconsin	325	North Dakota ...	200
Ohio	510	Missouri	320	Wyoming	200
Washington	490	Indiana	310	Vermont	190
Utah	458	Iowa	310	Rhode Island ...	185
Colorado	420	Texas	300	Arkansas	185
Connecticut ...	420	Idaho	285	North Carolina ..	130
Alaska	415	West Virginia	285	New Hampshire ..	125
Oregon	395	Maryland	280	Mississippi	125
Minnesota	385	Nebraska	255	South Carolina ..	115

- *(1) This figure is the average of 7 territories within the State, with \$1170 the highest rate and \$572 the lowest.
- (2) This figure is the average of 2 territories within the State, with \$825 the highest rate and \$490 the lowest.
- (3) This figure is the rate applicable to Members of the TMA Group Plan, while \$285 is the Rating Board figure.

MALPRACTICE CLAIMS CONTINUE TO INCREASE . . . Approximately 10,000 malpractice claims are expected this year with awards of over \$1 million being made by juries. This tremendous increase in both numbers and amounts is having a direct effect on the cost of medical care. Physicians must pass increased costs on to their patients. Many suggestions have been made to solve the problem including arbitration, legal reform, patient-paid malpractice insurance, and limitations on jury awards. Physicians, attorneys, insurance companies, and patients say proposed solutions deprive one or the other of interested groups of their just rights. The HEW Department of Malpractice Research and Prevention has said the growing problem of malpractice "is a social problem that may have catastrophic consequences and may become one of the most important factors dictating reform of our national health-care system."

* * * * *

AMA EXPLORING MALPRACTICE PROBLEM . . . The American Medical Association is conducting a Nationwide survey in an effort to seek less costly methods of underwriting professional liability insurance. A nationwide Malpractice Insurance Program, sponsored by AMA, is one area being explored.

* * * * *

MEDICAL APPLICATIONS FOR COMPUTERS GROW . . . Computers will play a larger and larger part in providing health services in the immediate future according to International Business Machines. By 1960, there were 6,000 computers while today the figure stands at more than 60,000 with that number expected to double by the Mid-70's. IBM sees computers processing information between patient wards and laboratories, freeing MD's, nurses and lab personnel from time-consuming paperwork. Continuous monitoring of critical patients will spot potentially serious conditions earlier than ever. MD's will use computers as a diagnostic aid, to analyze electrocardiograms, to match transplants, to classify chromosome images. Psychiatry and psychology are expected to turn to computers for assistance. Hospitals are finding more and more uses for computers, including cost reduction.

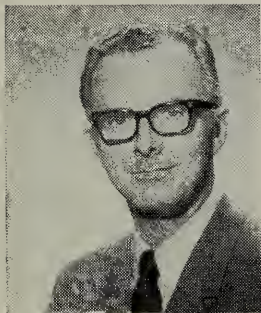
* * * * *

CALIFORNIA MEDICAL ASSOCIATION TO PROPOSE UNIVERSAL HEALTH INSURANCE PROGRAM . . . Delegates from the California Medical Association will introduce a resolution at the June AMA Convention in Chicago calling for the establishment of a universal health insurance program. The intent of the CMA plan is to propose a financing mechanism for medical care with everyone, regardless of income, age or employment status being eligible. The financing would be by Federal and State taxes and Employer-Employee contributions and would be administered by State governments under Federal supervision. The proposal would eliminate Medicare and Medicaid. The New York Medical Association recently voted to seek legislation creating a universal plan for all New York state residents. New York and California have 21% of all AMA delegates, more than the total number of delegates from 34 other states.

* * * * *

CHICAGO TO HOST AMA MEETING . . . The 119th Annual AMA Convention will be conducted in Chicago June 21-25. In addition to scientific programs presented by 23 sections, four general scientific meetings have been scheduled on the subjects of (1) The Comatose Patient and the Diagnosis of Death (2) Conception Control and Abortion (3) Delivery of Health Care—The Role of the Allied Health Personnel and (4) The Role of the Physician in Family Life, Education, etc. TMA members planning on attending the meeting should make their reservations immediately. See recent issues of JAMA or American Medical News for Hotel listings and reservation forms.

President's Page



TOM E. NESBITT

The return drive home after each annual TMA meeting invariably gives me a certain sense of futility as I attempt to review specific accomplishments. No doubt some of you have experienced similar feelings. We should nevertheless avail ourselves of this opportunity to annually review the work of our officers, the activities of our committees, and to redirect our interest toward those areas wherein lie medicine's current primary concern.

Last month in Memphis we noted our concern, and held extensive discussions on a variety of diverse subjects. These included:

- 1) The shortage of medical manpower and the need to design formats for instructional programs for physician's assistants.
- 2) A desire for an improved relationship with Blue Cross-Blue Shield of Tennessee.
- 3) The desirability of restructuring our internal organization.
- 4) Our genuine concern for spiraling hospital and health care costs.
- 5) Improved quality control of medical services through internal regulation within the profession, employing techniques of peer review and expansion of Judicial Council activities by virtue of expanded authority.
- 6) The need for change in our systems of health care delivery.

The last item, which includes the Tennessee Title XIX Program (Medicaid) was the target of extensive debate, often heated and seldom complimentary. One point, however, is crystal clear. There is uniform dissatisfaction with the program in the manner in which it has worked thus far, and there is no unanimity of opinion as to the best manner in which it should be revised. One can hardly expect perfection after seven months of operation, however, and hopefully as experience develops, trial participation continues to improve and proper regulatory and surveillance controls are allowed to function in the manner in which they have been designed. Only then will we accordingly witness the orderly development of a program that will prove to be satisfactory for the delivery of health services to the indigent population of Tennessee.

It behooves us all to realize that there are alternatives to Medicaid, some of which have already been proposed to the Congress, and are under consideration by the House Ways and Means Committee which might prove to be eminently less desirable than the Medicaid program with which we are currently struggling. By contrast it is imperative that the medical profession give adequate consideration to every innovative vehicle that is presented for the delivery of health care services. We agree unanimously that one of our prime objectives is to solve the problems of health care delivery to our economically depressed areas and indigent poor.

Perhaps we can all achieve the unity of our profession that must be maintained, if we allow ourselves to resolve our differences and focus our efforts on this one challenging problem which faces our profession today.

Sincerely,

 M.D.

President

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MAY, 1970

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EDITORIAL

MALPRACTICE UNDER STUDY

The Board of Trustees of the Tennessee Medical Association has taken steps to initiate a study of the professional liability insurance problem in view of the increasing number of malpractice suits, and the rapidly rising rates for professional liability coverage. This entire area has been of increasing concern to physicians. The Tennessee Medical Association is watching carefully the progress of legislation to alleviate the situation in other states, as well as discussions that are going on in Congress.

The number of malpractice suits and claims is rising sharply in certain regions of the country. We have been fortunate in Tennessee compared to other states, inasmuch as there has not been any great in-

crease in the number of suits filed against physicians.

Most malpractice suits are the direct result of injuries suffered by patients during medical treatment or surgery. Other suits are the indirect result of a deterioration of the traditional physician-patient relationship. Publicity given to malpractice cases, with higher settlements, is likely to trigger an increase in litigation, which could reach a crisis stage.

In recent months, the Tennessee Medical Association's Board of Trustees appointed an Ad Hoc Committee on Malpractice. In its first meeting, the Committee has found that national rates for malpractice coverage have increased more than 100% in some areas of the country. Many insurance companies have stopped providing this coverage, and some companies are only insuring physicians under sixty-five, and those that have never been involved in any malpractice litigation.

The Tennessee Medical Association's professional liability plan has worked well since its inception. 75%-80% of the membership of TMA now participate in the Association's group program. Efforts in other states have not been as successful and this has caused the rates in Tennessee to increase, irrespective of the excellent experience within the state. Approximately 23%-27% is being saved on annual premiums by the group plan in effect in Tennessee, which is a distinct benefit to TMA members.

The TMA Committee, in studying the problem, has developed several areas for consideration and further study. These include:

- (1) The development of a national, self-insured program for physicians;
- (2) Physician-attorney panels or panels consisting of physicians only;
- (3) "No fault" workmen's compensation plans;
- (4) Limited liability plans;
- (5) Removal of the contingency fee for attorneys; and
- (6) The removal of the "Res Ipsa Loquitur."

The Ad Hoc Committee has made three recommendations and has reported these to the Board of Trustees.

- (1) It is planned to have the TMA Legis-

lative Committee sponsor a resolution in the Tennessee General Assembly, requesting the Legislative Council Committee to study the spiraling cost of medical malpractice insurance in Tennessee.

- (2) The TMA Legislative Committee will be asked to determine the feasibility of a law requiring a plaintiff to put up a bond (amount to be determined later) when bringing suit against a physician, with the understanding that the bond will be forfeited if the case is found to be frivolous.
- (3) Efforts will be made with representatives of the Tennessee Hospital Association for the purpose of developing a mechanism of joint arbitration when both a physician and a hospital is involved in malpractice litigation.

Furthermore, the American Medical Association is studying the malpractice insurance problem to a considerable degree, and will probably present a report at its June meeting in Chicago. Also, the AMA has established an active clearing house for information on the subject to be correlated from all of the states.

The membership of the Tennessee Medical Association should be aware of the steps being taken. The TMA Ad Hoc Committee studying the problem, will keep abreast of the developments on professional liability, and report their progress from time to time.

Malpractice suits increase the cost of health care. The lion's share of the total cost of the insurance company for malpractice suits and claims goes to the legal community, and the cost for insurance is passed on to the consumer of health services. The Ad Hoc Committee for the Tennessee Medical Association that is making this study, sees the malpractice problem as one of medicine's major missions for 1970.

J.E.B.

IN MEMORIAM

Dedman, William M., Gallatin. Died December 9, 1969, Age 68. Graduate of Vanderbilt University School of Medicine, 1928. Member of Sumner County Medical Society.

Lyons, William Henry, Rogersville. Died March 12, 1970, Age 54. Graduate of Middlesex University Medical School, Boston, 1944. Member of Hawkins County Medical Society.

Prichard, Luther Fay, Nunnally. Died March 14, 1970, Age 85. Graduate of University of Tennessee Medical School, 1909. Member of Hickman-Perry County Medical Society.

Ingram, Minyard Dee, Trenton. Died March 20, 1970, Age 82. Graduate of University of Tennessee Medical Units, 1913. Member of Consolidated Medical Assembly of West Tennessee.

Leffler, Raymond J., Knoxville. Died March 30, 1970, Age 48. Graduate of State University of Iowa, 1947. Member of Knoxville Academy of Medicine.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES



New Members

The Journal takes the opportunity to welcome these new Tennessee Medical Assn. members.

CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY

Robert L. Jensen, M.D., Dunlap
L. Gordon LaPointe, M.D., South Pittsburg

NASHVILLE ACADEMY OF MEDICINE

Elizabeth Backus, M.D., Nashville
Leon H. Cochran, M.D., Madison
Robert H. Shipp, M.D., Madison

MEMPHIS-SHELBY COUNTY MEDICAL SOCIETY

Herman A. Crisler, Jr., M.D., Memphis
Albert J. Grobmyer, III, M.D., Memphis
Bobby J. Kelley, M.D., Memphis
James D. Massie, M.D., Memphis
Joseph A. Sullivan, M.D., Memphis

NORTHWEST ACADEMY OF MEDICINE

James Herman Smith, M.D., Dyersburg

PUTNAM COUNTY MEDICAL SOCIETY

James L. Breyer, M.D., Cookeville

SEVIER COUNTY MEDICAL SOCIETY

John C. Jacobs, Jr., M.D., Sevierville
Terrell B. Tanner, M.D., Gatlinburg

WASHINGTON-CARTER-UNICOI COUNTY MEDICAL SOCIETY

Norman E. White, M.D., Johnson City

Warren County Medical Society

Dr. Thomas Turner presented a discussion on "Methods of Prostatectomy," with illustrative slides, at a recent meeting of the Warren County Medical Society. Dr. Turner practices urology and is associated with the Murfreesboro Medical Clinic.

The President of the Warren County Medical Society is Dr. W. B. Bigbee and the Secretary is Dr. C. E. Peery.

Hamblen County Medical Society

The principal speaker at the March meeting of the Hamblen County Medical Society was Dr. James Mackenzie, Professor of Surgery at the McMaster University in Hamilton, Ontario. Dr. Mackenzie discussed the problems of emergency medical care.

Roane-Anderson County Medical Society

Dr. Jerrie Cherry, Professor of Otolaryngology at the Vanderbilt University School of Medicine, was the featured speaker at the March 31 meeting of the Roane-Anderson County Medical Society. Dr. Cherry's topic was "Common Problems in Diagnosis and Treatment in Ear, Nose, and Throat."

Memphis-Shelby County Medical Society

The Memphis and Shelby County Medical Society has assumed responsibility for publication of a forthcoming book on the history of medicine and surgery in Memphis, prepared as a part of the city's 150th anniversary celebration. Those desiring copies should forward \$5.95 per copy to the Medical Society headquarters.

Knoxville Academy of Medicine

Dr. Johannes Blom, Chief of Oncology at the Hematology-Oncology Clinic at Walter Reed General Hospital in Washington, D.C. was the featured speaker at the April meeting of the Knoxville Academy of Medicine. Dr. Blom's topic was "Combined Radiation Therapy and Drug Therapy in the treatment of Malignancy."

Also Dr. Richard Sexton presented a case report entitled "Acute Leukemia in an Adult."

Committee a new medicaid plan utilizing existing private health insurance mechanisms to replace the present program of health care assistance for the medically indigent.

Robert H. Finch, secretary of Health, Education and Welfare, said Congress would be asked to approve legislation authorizing "health maintenance contracts guaranteeing health services for the elderly and the poor at a single fixed annual rate for each person served."

"In the case of medicare," Finch said, "the patient will be entitled under such a contract to all of the usual medicare services plus preventive services. The contract price will be negotiated in advance at an amount less than the Social Security Administration presently pays for conventional medicare benefits in the locality.

"Similarly under medicaid we are seeking authority for the states to offer to the poor the option of securing services under such health maintenance contracts. We propose to work with the individual states toward the modification of their present programs in this regard and to encourage their use of the experimental authority previously mentioned for the testing of a variety of different contractual arrangements.

"The cornerstone of this new option in federal health purchasing will be the opportunity for consumers to choose between alternatives. The ultimate goal will be to give every beneficiary of these programs a choice between obtaining services from a health maintenance organization or arranging for them in the usual way from individual doctors and hospitals. He will have the choice of withdrawing from enrollment in a health maintenance organization if he finds the service unsatisfactory. The government will have the choice of entering into arrangements with individual health maintenance organizations, subject to special standards including assurance that every contractor will serve persons of high medical risk as well as the healthy."

Earlier, HEW Under Secretary John G. Veneman told the house committee that it was planned to call the new approach under medicare Part C—to provide all services covered under Parts A and B "plus pre-

NATIONAL NEWS

The Month In Washington (From Washington Office, AMA)

The Nixon Administration proposed that prepaid, closed-panel group practice health care be authorized under both medicare and medicaid.

The American Medical Association recommended to the House Ways and Means

ventive services." He estimated a saving of about \$15 per person, but some committee members were skeptical that more services could be provided at less cost.

Both Finch and Veneman made clear that one of the main objectives is a fundamental change in the nation's system of health care delivery. They said states would ask to repeal existing laws restricting prepaid group practice. They said that future federal medicaid funds might be made contingent on states eliminating "legal barriers to all forms of health delivery organizations."

"Let me conclude by saying that our broad objective is to frame an effective and reasonable approach to meet the health needs of the American people," Veneman said. "Obviously the federal government by itself cannot redirect the total health delivery system. We can, however, do our best to make sure that the vast expenditures of the federal government in the health care industry are used in a way that will contribute to the evolution of an improved, more effective, more economical system to deliver health care to our people. To the extent we are successful, we will be delivering the maximum benefit from the public funds entrusted to us. But what is equally important, we will be providing valuable support for improvement of the total health care system, public and private. In that way, we will be helping to improve the delivery of health services for all the American people."

Dr. Russell B. Roth, speaker of the AMA House of Delegates, told the House committee that medicaid "has demonstrated some weaknesses which badly need correction."

A new program, he said, should: "provide the Congress with a basis for reasonable predictable costs; ease the burden on the states; assure total implementation; and while maintaining a level of quality, insure that the costs of the program remain within the range of acceptability."

The program recommended by the AMA had these features:

1. Each eligible person (or family) would receive a certificate to be redeemed by a qualified health insurance company offering

a health insurance policy or contract of certain basic health benefits such as hospitalization, medical care, preventive care, and diagnostic and outpatient care.

2. The premium cost for such policy or contract would be assumed by the federal government from its general revenue fund.

3. The states, freed from the expense of financing the basic costs of health care for their indigent and medically indigent residents, could provide supplementary benefits. These might include, for example, skilled nursing home care and dental services.

4. The determination that an insurance policy or contract, and the company offering same, are "qualified" would be made by a state agency which customarily has that authority. However, changes in the scope of benefits, and guidelines or standards to be used by the insurance departments in judging the company and the plan it offers, would be established by a national board appointed by the President.

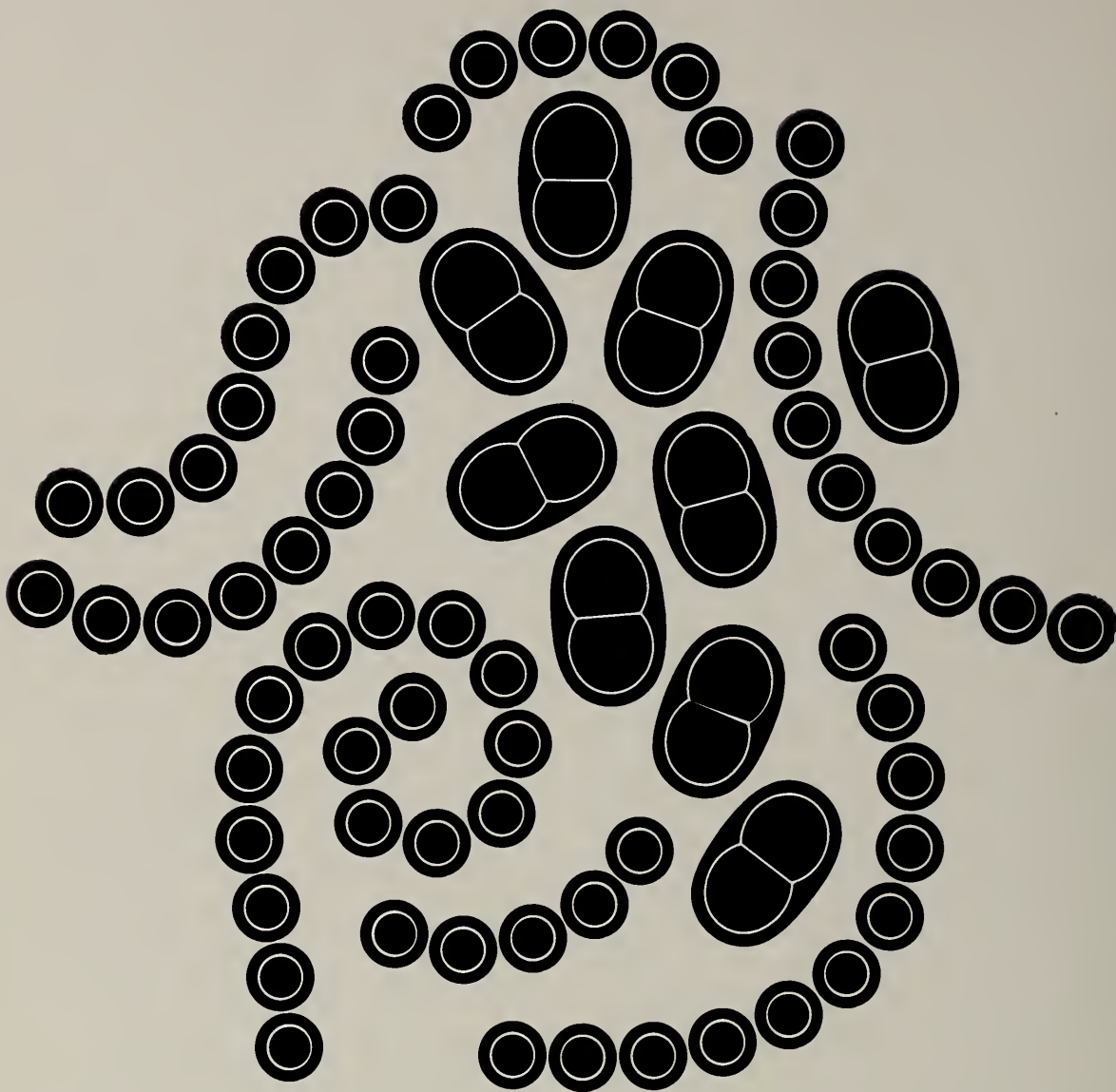
5. All individual and families below a certain level of income would be eligible to participate. A simple determination of eligibility could be made by the appropriate federal agency on the basis of income, or an even more refined criterion could be used such as tax liability. The program could require marginal needy families to participate in the expense of the premium charge by paying a small part of it, varying such participation in direct proportion to this tax liability.

6. For the lower income family there would be no deductibles and no co-insurance features.

7. To insure a high level of quality and to prevent cost escalation, the program would provide for a system of "peer review," organized and conducted in a manner to assure its success.

As to those services and charges which are within the purview of the medical profession, appropriate medical societies would be given the task of establishing a peer review mechanism that would, among other things, review individual charges and services wherever performed; review hospital and skilled nursing home admissions as to their medical necessity, and stays in hospitals and skilled nursing homes as to their

during and after infection



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continued medical necessity; and review the need for the professional services provided in the institution.

In the case of fraud or other clear intentional and gross misconduct, the peer review committee would be expected to bring charges before the appropriate licensing body.

To assist peer review committees in becoming established and in their operation, the program should provide for federal participation in the cost incurred in developing the program and its operation. To assure participation by members of the profession, those who serve on peer review committees should be held harmless from any actions or claims based on their decisions as to the necessity or quality of the services provided, or the reasonableness of the charge.

In the event that a peer review committee is not established by the appropriate medical society within a reasonable time, or although established is not functioning, the Secretary of Health, Education and Welfare in consultation with the medical society, would be empowered to appoint a committee to so act.

* * *

The American Medical Association supports the Nixon Administration's air pollution control bill (S. 3466) which would give the Department of Health, Education and Welfare power to set air quality standards for the nation.

The legislation also would provide for intensified research in air pollution and for tough enforcement procedures on the national air purity standards.

The AMA also supports accompanying legislation providing for expanded research on ways to cut auto exhaust pollution and for pollution control standards for watercraft and airplanes.

Dr. James M. Blake, a member of the AMA's Council on Legislation, told the Senate Subcommittee on Air and Water Pollution:

"For too long we have taken for granted the atmosphere one of our natural resources; it is time now to look upon this resource as one on which the survival of man depends. . .

"In recent years, the country has awakened to the need to control air pollution. Yet, more and more, our air becomes polluted and hazards to health increase. We must take stronger action to reverse this direction—stronger action than we have taken in the past. . .

"It is imperative, that all elements of our society join to overcome the increasing pollution of our atmosphere. Measures which a few years ago were deemed adequate to meet the needs simply have not achieved the desired goals. New steps must be taken if we are to make any substantial headway in alleviating the problem. Accordingly, we believe that it is now necessary to provide for additional pollution controls and to make the essential financial commitment. . ."

* * *

States must report to the Internal Revenue Service each year on total payments to providers of medicaid services under new regulations issued by the Department of Health, Education and Welfare.

Each year, states will file Internal Revenue Service Forms 1096 and 1099 giving amounts paid to physicians, dentists, pharmacists, opticians, nursing homes, hospitals and other individuals and institutions that provide service to medicaid patients.

States will be required to identify each individual provider of service by social security number, and partnerships and corporations by an employer identification number.

States also must establish procedures for verifying with recipients whether services billed by providers were actually received. Such verification may be made by spot checking.

* * *

President Nixon approved a \$65 million increase in the Veterans Administration medical care budget mainly to improve services for wounded Vietnam war veterans.

An increase of \$50 million was authorized in the VA's medical budget for fiscal 1971 and \$15 million for the remainder of this fiscal year. Nixon acted after reviewing a study by Veterans Administrator Donald E. Johnson of the scope of the veterans medical care program and the increasing

difficulties it has faced in providing hospital and clinical care.

"To those who have been injured in the service of the United States we owe a special obligation," Nixon said. "I am determined that no American serviceman returning with injuries from Vietnam will fail to receive the immediate and total medical care he requires."

The \$15 million supplemental appropriation would be spent in April, May and June to clear up the excessive backlog in Vietnam veterans dental claims and to improve the staffing of specialized medical programs, especially the spinal cord injury centers and coronary intensive care units.

The additional funds also would be used to carry out plans for taking hemodialysis units into the homes of veterans suffering from serious kidney ailments and to help meet increased costs of needed drugs and medicines.

The VA's budget request already submitted to Congress for the 1971 fiscal year beginning in July totals \$1.54 billion.

The new request for \$50 million will bring the budget for fiscal 1971 to \$210 million more than the approved appropriation for fiscal 1970.

MEDICAL NEWS IN TENNESSEE

Vanderbilt University School of Medicine Hillman Chair Endowed

Interested and grateful friends have expressed a desire to establish a memoriam to the late Dr. J. William Hillman in the form of an endowed Chair in Orthopedic Surgery at Vanderbilt University School of Medicine. Dr. Hillman died suddenly of a heart attack on March 6 at the age of 49.

The endowed chair in Dr. Hillman's name would provide a continuing source of support to attract physicians distinguished in orthopedic surgery to carry forward Dr. Hillman's work. Such physicians who would occupy the endowed Chair would be known as the Hillman Professor of Orthopedic Surgery. The Hillman Professor would have the ideals that Dr. Hillman held and prac-

ticed, and through the endowed Chair, would have the opportunity to pursue the many official and humanitarian duties of the orthopedic surgeon.

Dr. Hillman came to Vanderbilt in 1952 from Johns Hopkins University where he received his medical education, and in 18 years he earned a reputation as one of the leading orthopedic surgeons in the country. He became chairman of the department in 1962. He was active in national and local organizations in his field. In addition, he was Past-President of the American Academy for Cerebral Palsy and had been associate editor of the *Journal of Bone and Joint Surgery*. In 1963 Emory and Henry College, his alma mater, gave him the William and Martha DeFreice Award for outstanding contributions to human welfare.

Funds are being sought to endow the J. William Hillman Chair in Orthopedic Surgery. Gifts can be sent to the J. William Hillman Memorial Fund, Department of Orthopedic Surgery, Vanderbilt University School of Medicine, Nashville, Tennessee 37203.

* * *

Dr. James Dinning, Director of the Rockefeller Foundation program in Medical and Natural Sciences in Bangkok, Thailand, is Visiting Professor of Biochemistry and Nutrition at Vanderbilt until October 1970. He is taking a leave from his administrative duties in Bangkok to "do some research in nutritional biochemistry, to attend lectures, to do some writing, and then to travel to other universities in this country to study current trends in medical education." His special research interest is in the metabolic function of vitamin B-12.

* * *

Leonard Edwards Lecture

The first annual Leonard W. Edwards Lecture was presented on March 27. Dr. Lester Dragstedt, Professor of Surgery at the University of Florida, spoke on "The Cause and Surgical Treatment of Gastric Ulcer." Dr. Dragstedt's first contribution to science was made in 1917 when he did experimental studies on acid gastric juice as a possible causative factor in duodenal ulcers. In 1943, he introduced vagotomy in the surgical treatment of the duodenal

ulcer and in 1953, he introduced the concept that peptic ulcers are usually due to a hypersecretion of gastric juice and that in duodenal ulcers this hypersecretion is usually of nervous origin, whereas in gastric ulcers it is usually of hormonal or humoral origin.

Dr. Dragstedt was a close personal friend of the late Dr. Edwards, in whose honor the Leonard W. Edwards Lectureship was established. Dr. Edwards' main interest was in surgery of the gastrointestinal tract, to which he made several outstanding contributions. In 1947, he and Dr. Reginald Smithwick of Boston, both working independently, described a new operative procedure for duodenal ulcers. This operation was a physiologic one and consisted of dividing the vagus nerves to the stomach, combined with a conservative resection of that organ. This operative procedure is now used the world over.

The Leonard W. Edwards Lectureship was established by Dr. Edwards' son, Dr. William H. Edwards, his two sons-in-law, Drs. J. Lynwood Herrington and John L. Sawyers, and Dr. H. William Scott, Jr., Chairman of the Vanderbilt Department of Surgery.

PERSONAL NEWS

The scientific exhibit of **Drs. Glenn E. Horton** and **Orin D. Butterick**, Memphis, presented at the 1969 meeting of the American College of Chest Physicians is featured in the current issue of *Modern Medicine*.

Dr. Gerald Jones, formerly of Manchester, is now associated with **Drs. W. Powell Hutcherson** and **Harold A. Schwartz** in the practice of Obstetrics and Gynecology in Chattanooga.

Dr. Lloyd Elam, Nashville, received the Eleanor Roosevelt Key Award from Chicago's Roosevelt University. The Roosevelt Award, the highest alumni award given by the University, is given annually to an outstanding educator.

Dr. Greer Ricketson, Nashville, has been elected Chairman of the Tennessee Game and Fish Commission.

Dr. James Greene has been elevated to the position of associate medical director at the Regional Mental Health Center in Oak Ridge.

Dr. James W. Hedden has returned to the private practice of medicine in Chattanooga fol-

lowing two years of active duty in the U.S. Army.

The Middle East Tennessee Chapter of the Arthritis Foundation honored its founder, **Dr. John B. Youmans**, at a recent banquet in Nashville. Dr. Youmans, Emeritus Professor of Medicine at Vanderbilt University School of Medicine, was the Chapter's first president ten years ago and guided it from one county in 1959 to 74 counties in 1969.

Dr. Nat T. Winston, Jr., Nashville, was the principal speaker at the annual meeting of the Johnson County Chamber of Commerce.

Dr. Robert G. Demos, Chattanooga, has been named to head the physician's division of the Allied Arts Funds Drive, a combined fund-raising effort of six Chattanooga organizations.

Dr. Arnold Meierowsky, Nashville, was voted President-Elect of the Southern Neurosurgical Society at its recent meeting in Durham, North Carolina. The Southern Neurosurgical Society is the third largest Neurosurgical Society in the world.

Dr. Orin B. Butterick, Memphis, has been granted a Fellowship in the American College of Cardiology, the national medical society for specialists in cardiovascular diseases. **Dr. Frank London**, Knoxville, is the ACC Governor for Tennessee.

Dr. Bernard M. Zussman, Memphis, conducted a research seminar at the annual meeting of the American College of Allergists on March 16 in Miami. His subject was "Tobacco Sensitivity in the Allergic Patient."

Dr. William F. Meacham, Nashville, was one of the speakers at the American College of Surgeons' joint sectional meeting for surgeons and graduate nurses in Washington, D.C. on March 16-18. Dr. Meacham's subject was "Carotid and Middle Cerebral Artery Aneurysms."

Drs. Robert E. Maddox, Kingsport, **Clifton L. Walton**, Knoxville, and **George W. McCall**, Bristol, received Fellowship degrees from the American College of Radiology at its 47th Annual Meeting on April 3 in Dallas. **Dr. George Cooper, Jr.**, Memphis, was elected ACR Vice-President. ACR is a National Association of physicians and physicists who specialize in the use of x-rays in the diagnosis and treatment of disease.

Dr. Reynolds Fite, Winchester, was presented with a new automobile by an anonymous group of patients from his community. The automobile was given in appreciation of his "untireless devotion to duty" for more than two decades in the county.

Dr. Charles W. White, Lexington, is the lone Tennessee physician on a medical mission team which left March 29 for a three-week stay in Bolivia, South America. The team is sponsored by the United Methodist Church and is com-

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listeriosis
lymphogranuloma

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infection
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pharyngitis
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dermatitis; photosensitivity; onycholysis, nail discoloration. *Kidney*—dose-related rise in BUN.

Hypersensitivity reactions—urticaria, angioneurotic edema, anaphylaxis.

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posed of physicians, dentists, nurses and paramedical personnel.

Dr. William A. Lewis, Pulaski, has been named the VFW Citizen of the Year. Dr. Lewis has been in the practice of medicine in Pulaski for 61 years and is still active in this capacity.

Dr. Joseph J. Dodds, Chattanooga, has been elected President-Elect of the Federation of American Hospitals. The honor came at the organization's recent annual convention in New Orleans.

BOOK REVIEW

A WAY OF LIFE. By William Osler. 41 pages. Springfield, Ill.: Charles C. Thomas, Publisher, 1969. Price \$3.95.

It is appropriate that this little volume containing the address delivered to Yale students by William Osler in 1913 should appear at this time. The fiftieth anniversary of the death of this man who had a greater influence upon medical education in this country than any other, occurred at the end of the year 1969. This address was an exhortation to the medical student to develop sound habits of work and discipline. The need for a life style necessary to meet the exigencies of day to day living always the lot of the practitioner of medicine. As with his other writings, this essay by Osler makes delightful reading. Too at graduation time this small volume makes a warm gift to the young man about to receive his medical degree.

MODERN TREATMENT. Hoeber Medical Division of Harper and Row 1969. By subscription \$16.00 per year.

Vol. 6 No. 1, January—Treatment of Restrictive Pulmonary Insufficiency, Edited by E. R. Levine, M.D., and Treatment of Liver Disease, Edited by Fenton Sahafer, M.D.

No. 2, Treatment of Obstructive Pulmonary Insufficiency, E. R. Levine, and Treatment of Lymphedema, Alexander Schirger, M.D. (March)

No. 3, Treatment of Thyroid Disease, James A. Pittman, Jr., and Treatment of Vertigo—special article by M. W. Frederic, M.D., Wallace Rubin, M.D. and Robert Wolfson, M.D. (May)

No. 4, Psychiatry in Medical Practice, Ephraim T. Lisansky, M.D. and Bernard R. Schocket, M.D. (July)

No. 5, Treatment of Acute Renal Failure, John P. Merrill, and Treatment of Infectious Forms of Arthritis, Frank R. Schmid, M.D. and Richard H. Parker, M.D. (September)

No. 6, Treatment of Epilepsy and Other Paroxysmal Disorders, J. Gordon Millichap, M.D., and Treatment of Hyperlipidemia, Donald Berkowitz, M.D. (November)

The six titles of *Modern Treatment* listed above appeared during the calendar year of 1969.

Instead of reviewing each in detail this review has as its purpose, an emphasis upon the value of this series of books published now in its sixth year. This series represents what may become a custom more and more with the passage of time. The expansion of medical knowledge is so rapid that the time lag between the writing of a "hardback" book and when it comes off the press, is so great that sections of the book may well be outmoded. This is particularly true with regard to management and treatment. (The "hardback" still has, as a permanent addition to a library, a function since it contains core knowledge for periodic review. Such books only become slowly outmoded.) On the other hand, treatment and management will require a different approach. It may be that in the future these aspects of a disease may be deleted from the standard textbooks, to be published as supplements to books which contain core knowledge.

In any event, Hoeber's has taken a step in the new direction by issuing six times a year a review of the management of therapeutic problems, which face the practitioner.

ANNOUNCEMENTS

Calendar of Meetings, 1970

State

- | | |
|------------|--|
| May 21 | Middle Tennessee Medical Association, AEDC, Tullahoma |
| May 26-29 | Mid-South Medical Association, Holiday Inn-Rivermont, Memphis |
| June 16-17 | Upper Cumberland Medical Society, Cloyd Hotel, Red Boiling Springs |

National

- | | |
|--------------|--|
| May 20-23 | American Gastroenterological Association, Sheraton-Boston, Boston |
| May 24-27 | American Thoracic Society, Sheraton, Cleveland |
| May 25-27 | American Gynecological Society, The Homestead, Hot Springs, Virginia |
| May 28-30 | American Ophthalmological Society, The Homestead, Hot Springs, Virginia |
| June 15-17 | American Neurological Association, Claridge Hotel, Atlantic City, New Jersey |
| June 21-25 | American Medical Association, Annual Meeting, Chicago |
| August 16-18 | American Academy of Physical Medicine and Rehabilitation, New York Hilton, New York. |

- September 10-12 American Association of Obstetricians and Gynecologists, The Homestead, Hot Springs, Va.
- September 14-17 American Hospital Association, Houston
- September 19-20 American Association of Ophthalmology, Las Vegas
- September 20-23 American Association of Medical Clinics, St. Francis, San Francisco
- Sept. 25-Oct. 1 American Academy of General Practice, San Francisco
- Sept. 30-Oct. 1 AMA Congress on Occupational Health, Century Plaza Hotel, Los Angeles

ACP Announces Post Graduate Courses

The American College of Physicians has announced the following continuing education courses:

1. "Heart Disease: Clinical and Pathological Correlation" May 27-29, 1970, Georgetown University Hospital, Washington, D.C.
2. "Pathology, Pathologic Physiology and Clinical Aspects of Renal Disease," June 3-5, 1970, Georgetown University School of Medicine, Washington, D.C.
3. "Psychiatry for the Internist," June 8-12, 1970, Baltimore Psychoanalytic Institute and Psychiatric Institute of the University of Maryland School of Medicine, Baltimore, Maryland.

16th Annual Southern Obstetric and Gynecologic Seminar

The 16th Annual Southern Obstetric and Gynecologic Seminar will be held this year at Grove Park Inn in Asheville, North Carolina, from Monday July 27 through Friday July 31. A wide variety of obstetric and gynecologic subjects will be covered including cryosurgery, vaginal surgery, cervical dysplasia and carcinoma, obstetrical anesthesia, infertility and hormonal and pituitary ovarian balance studies.

The active faculty this year will be Dr. Bayard Carter of Duke University, Dr. Robert Barter of Washington, Dr. Raymond Kaufman and Dr. Robert Franklin of Baylor University, Dr. Robert Greenblatt of Georgia, Dr. Duane Townsend of California and Dr. Charles Hendricks of the University of North Carolina.

The Seminar is designed for informal teaching with many open discussions and panels. Registration is limited to the first fifty applicants.

For information and registration please write: Dr. George T. Schneider, Ochsner Clinic, 1514 Jefferson Highway, New Orleans, Louisiana 70121.

Upper Cumberland Medical Society To Meet

The Upper Cumberland Medical Society will

hold its annual meeting at the Cloyd Hotel in Red Boiling Springs on Tuesday June 16th and Wednesday June 17th.

As usual it is expected that the program will be approved for 10 accredited hours by the Academy of General Practice.

One particularly interesting subject to be presented will be a panel discussion by a psychiatrist, a policeman and a reformed drug user on the subject of drug abuse. This will be just before lunch at 11:15 on Tuesday the 16th. Wives and children are not only invited but encouraged to attend this panel discussion.

Other interesting papers on Plastic Surgery, Orthopedics, Urology, Thoracic Surgery, Cardiac Surgery, Cancer and Nutrition of interest to the Specialist as well as the Family Physician will be presented.

These meetings in the quaint atmosphere of Red Boiling Springs with its relaxing mood and excellent food are always considered one of the highlights of the year by those who attend.

Psychiatry Seminar Scheduled For Central State Hospital

A one-day seminar in psychiatry will be held June 18, 1970 at Central State Psychiatric Hospital in Nashville. The program will concern itself with problems in communication and related areas. The topic of non-verbal communication between physician and patient will be discussed, as well as the problems in communication between psychiatrists and other physicians.

Featured speakers will be Nicholas Stratas, M.D., Deputy Commissioner of Mental Health of the State of North Carolina and Robert Daugherty, M.D., Chairman, American Psychiatric Association Committee on Psychiatry and Medical Practice. Both Dr. Stratas and Dr. Daugherty are nationally recognized for their work in programs of continuing education and both have been involved in the creation and development of many unique and exciting projects.

Discussions will be augmented by motion pictures and slide presentations depicting the experiences of both physicians. The program will also feature physicians from the Vanderbilt School of Medicine and Nashville Academy of Medicine, co-sponsors of the seminar along with the Tennessee Department of Mental Health, Tennessee Academy of General Practice and Central State Psychiatric Hospital.

The American Academy of General Practice has accepted the program for six hours credit. Registration will be in the lobby of the Ellington Building at 8:00 a.m.

Medical Education Study Begun by THEC

The Higher Education Commission is conducting a comprehensive study of medical education in Tennessee, since Tennessee like most other

Southern States, has a much lower supply of doctors than the national average.

Under the leadership of Dr. Jerry N. Boone, HEC associate director for academic programs, a basic outline for the study was prepared. In six major categories these questions were asked:

Is there a need for more physicians in Tennessee?

Are additional medical education slots the best means to providing more physicians?

Is a new medical school the best means to provide more slots?

Where should a new school be located?

Is priority sufficient to justify cost?

What alternatives to traditional four-year medical schools exist?

One of the early findings of the study was that a high percentage of the doctors who are educated in Tennessee locate for practice in other states. About 43 percent of the graduates of UT in recent years are practicing in Tennessee, 26 percent of Vanderbilt's graduates and only seven percent of Meharry's graduates. While some of Tennessee's doctors were trained in other states, we sent more doctors trained here to other states (2,781) than we got back (691) in the 15 years between 1950 and 1964. If we had been able to keep in Tennessee just half the net loss of doctors, we would have added the equivalent of the output of a medical school larger than Vanderbilt. The problem from this perspective is, how can we keep more of the doctors we train in the state for practice?

Tennessee has made slight strides in improving the physician population ratio since 1962 when there were only 96 doctors per 100,000 persons. A growth of 14 percent in the past seven years, coupled with an eight percent increase in population, has raised this figure to 104. During this same period, however, there were 16 counties with one or no physicians and eight counties in which there were less than 25 doctors for each 100,000 population. It should be noted at this point that the United States ratio is 145 physicians per 100,000 population—and Tennessee ranks fourth from the top in this ratio among the Southeastern states.

Our supply of physicians is gradually rising, but not at such a rapid pace that Tennessee will even catch up with the current national average of 145 per 100,000 population by 1980. One of our most pressing problems, then, is the retention of a larger proportion of graduates of the three medical colleges in the state. More attractive internships and residency programs, and larger residency programs, may be a key to a greater retention.

An interesting note is the heavy concentration of doctors in the state's major urban areas. The majority of medical specialists (about 73% of all doctors in the state are specialists) are concentrated in our five metropolitan areas. A breakdown of these specialists showed 788 practicing in Shelby County (site of the University

of Tennessee Medical School), 601 in Davidson County (site of Vanderbilt and Meharry Medical Schools), 283 in Knox County, 255 in Hamilton County and 189 in the Sullivan-Washington County area. Only 11 other counties have five or more specialists. There is also a significant difference in the number of physicians per 100,000 population in the various divisions of the state—125 in West Tennessee, 97 in Middle Tennessee, 95 in East Tennessee and 91 in Upper East Tennessee in 1969.

One of the most important early findings of the study indicated that if by 1980 this state intends to hold its current physician/population ratio it will require a 17.4 percent increase over 1967 in the number of doctors to support the expected population rise. If, on the other hand, Tennessee strives to attain by 1980 the current United States ratio of 145 doctors, per 100,000 population, a 43.1 percent increase over 1967 is needed.

By 1980, there will likely be many innovations in the total system of health care. Those improvements will necessitate considerable changes and additions in the preparation of allied personnel in the medical and para-medical fields. This initial study seems to make it quite clear that in order to improve its health care, Tennessee must do a great deal more than simply work toward increasing the number of medical school graduates in the state.

—(*Higher Education Report*
Vol. 1 No. 1, Mar. 1970)

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PEER REVIEW

Richard S. Wilbur, M.D.
Assistant Executive Vice-President
American Medical Association

PEER REVIEW! A popular term these days. First, though, what does it mean? Literally, it means a review by one's equals. Therefore, it means to us a survey of a doctor's work by other doctors.

Then, why do we need this peer review so desperately? The answer to this question itself becomes a multiple series of problems. They begin, of course, with government—specifically with Titles XVIII and XIX which were passed in Public Law 89-97. While the Medicare Law only calls for in-hospital utilization review, experiences in the last three years have shown that far more is needed. There has been the well publicized increase in health care costs so that at the September meeting of the Medicare Health Insurance Benefits Advisory Council, the following statement was presented:

"In order to provide an acceptable level of quality for the services rendered under Part B of Medicare, consideration should be given to establishing standards to govern the rendering of services by physicians, analogous to, but necessarily quite different in application from, the standards now established for most other providers of health care under Medicare. The need for broad standards for physicians' services is predicated upon the right and responsibility of the government to have assurance of the acceptable quality of all services for which it provides reimbursement. Precedents which have been set in government and non-government programs, and published studies, which point out the wide variability in quality of medical care, indicate the need.

"Thus, the standards of eligibility for physicians would be a 'preventive' measure to keep some physicians from

ever rendering certain medical services under the Medicare program. This differs from the 'post facto' stopping of abusers of the Medicare program. The latter may involve a *few* physicians, those who are grossly abusing the program. The former could potentially involve the future participation of *many* of the practicing U. S. physicians in the rendering of certain medical services under the Medicare program."

The first answer to the "why" of peer review, then, is a very practical one. Government must be assured that it is getting its money's worth for all the billions it has spent with these large programs. No man can be elected to public office on a platform in which he agrees to allow the expenditure of unlimited and unchecked sums of money for any purpose—even for the health care of the American people. All of us here tonight are taxpayers and all of us would like to think that the money which we give up to our government is truly buying something worthwhile. The non-physicians of the country have been convinced by what they read in the newspapers that they are no longer getting their money's worth for taxes spent on Medicare and Medicaid. They want, rightfully, some proof.

There are still other reasons we need to have peer review. One is malpractice. This is an evergrowing problem in some areas such as Southern California where premiums of \$5,000 to \$16,000 a year are now being paid by doctors who have never been sued. The problem is acute. Over and over, the point is made that the public is not assured that medical care is of high quality. Therefore, the allegations and accusations of the plaintiff's attorney fall upon open ears and juries are quite willing to believe the worst about all physicians. If they knew that an adequate mechanism of peer review existed which assured them of the quality of health care, this problem could be alleviated as it has been in areas such as Tucson, Ariz.

The third reason why we need peer review comes from the press. The press has been quite willing to assign the responsibility for all of the rise in health care costs to the physician because it includes the vast portion which is paid to institutions, particularly the hospitals and extended care facilities. If we physicians are to take the blame for the expense, the least we can do is to take the responsibility for supervising this expenditure. In other words, we will have to supervise the utilization and, beyond that, even the efficiency and the quality of care given in the hospitals and the extended care facilities as well as that given by physicians. In some areas, this review has been extended also to the ordering by physicians of such services such as physical therapy and even to the prescribing of medications—95% of health care expenditure.

The fourth reason, however, is the most important and that is the problem of satisfying the American people—the patients of the doctors of America—that they are receiving the highest possible quality of care. Let me say that I am not concerned about your particular patients. The mere fact that you are the kind of a physician who has enough interest to come here tonight to listen to a talk on this subject is proof enough that you are not the kind of a doctor whose patients need this assurance. Unfortunately, there are many other doctors who have not come here tonight and who don't go to any other medical meetings, conventions or continuing medical education. These are the men whose patients are uneasy—sometimes with good reason. The question, therefore, becomes not if we need medical care review, but who will do it?

Review of Quality Under Medicare

The Cost Effectiveness Act of 1969, which has been sent from HEW to the House of Representatives, contains a number of provisions for federal review of quality under Medicare. Some of these include, as did also Walter McNerney's Medicaid Taskforce Report, suggestions for federal licensure and federal standards. So it now becomes very clearly a matter which will be handled by government, if no one else steps forward

first. However, we have seen in the past, situations in which the government was quite willing to accept voluntary standards. The Joint Commission on Accreditation and our specialty boards are two cases in point.

You might then ask whether there is any precedent for doctors in their organizations to engage in review of the quality of health care. There certainly is! The AMA virtually since its inception has been opposed to low standards as exemplified by quacks and chiropractors. Even before the Flexner Report, and certainly very much since then, we have been concerned with the quality of training in medical schools and with the accreditation of internship and residency programs. We have worked to improve the quality of drugs since 1900.

Within the local medical societies there have been rather elementary forms of peer review for many years. Most societies have some form of insurance review committee. This committee's activities vary from place to place, but, in general, it adjudicates fees and makes some effort to explain why the fine print in an insurance contract means that the company does not have to pay the patient for the physician's work. Most local societies also have grievance committees. These, of course, take care of complaints, be they from patients, third parties or other physicians. Both of these types of committees are largely of the brush-fire type, i.e., they do not go into action until long after a problem has occurred and not until after someone else brings it to the attention of the medical society.

Another form of peer review with which we are all familiar is that in the hospital with its credentials committee, medical records, committee, tissue committee and utilization review committees. The current AMA position on peer review can be summarized with the following quote from Report F of the Council on Medical Service to the Annual Meeting in New York this year:

"For more than a decade, the Council on Medical Service and its Committee on Health Care Financing (formerly the Committee on Insurance and Prepayment Plans) have recognized a need for the establishment of professional re-

view activities by medical society review committees and utilization review committees of hospital medical staffs. Initially, this interest was generated by concern over the continuing increase in the costs of health care, particularly for hospital services, and the resulting steadily rising rates required from the public for health benefits protections. In accepting a responsibility for professional review activities, the medical profession has demonstrated its awareness of the need to conserve the patient's health care dollar, educate and inform the profession in the economics of health care, assure the appropriate use of health care personnel and facilities, and maintain high standards of medical practice."

Future Outlook

What is the future purpose of peer review then? Sometimes it is easier to start out by saying what it is not. It is not being a cop and it is not simply performing as a government agent to save tax money. The main purpose is to assure the public of the quality and effectiveness of the health care being given in that area. There are also side purposes of considerable importance, however, such as education. There is much which the person being reviewed can learn. As an example, the American Association of Medical Clinics in the last few years has set up an arrangement in which several doctors leave their practices in their different clinics and gather to spend two days inspecting a specific clinic. They do not do this as policemen who have been called in by the AAMC or by government to check on some questionable practices. They only do it when the clinic being surveyed requests such a visitation. In fact, the clinic which is surveyed pays all the expenses.

Since they do not need this investigation in order to be a member clinic, don't get any fancy certificate and don't get any increase in the fees they can charge, you may wonder why they bother. The answer is that any group which wishes to improve, and I have never seen one yet that was close to perfection, can only benefit from a critical review by informed fellow physicians. So

far, each group reviewed has thought that it was more than worth the effort and expense.

You might also ask why a doctor would leave his practice for a couple of days to go prowling through another clinic. The answer here involves more than altruism. It is impossible for an intelligent man to spend two days watching other doctors practice medicine without learning something which will be to his benefit. Remember you never had a medical school course in how to run an office. Whether you are in group or solo practice, it is doubtful that you are so efficient that you could not learn even better ways, either by having another doctor visit you or by your spending time observing his practice.

So the purpose, then, is not just to save taxpayers money, not just to assure the public of quality and effectiveness but, also, a form of continuing medical education for both the reviewer and the reviewed.

The next problem we face then is what is it we should review? It seems obvious from the past discussion, we must review all there is of medical care, at least, and very possibly in the future, all there is in health care. Certainly we must review the medical treatment given in hospitals and extended care facilities. More recently it has become increasingly obvious that, like it or not, we must also review the medical care given in the office. It may be difficult, but it is certainly essential.

Next, you might ask, what are we looking for? First, of course, is fraud, which in medicine is no different from any other kind of fraud and the duty of the peer review team is no different from that of any other honest citizen. Fortunately, this is rare and soon taken out of the hands of the physicians. The next item for which we look, of course, is the too-high fee, something we have done traditionally for many years. Beyond that, we must now begin to look at utilization—that is the number of services rendered and even beyond that to the efficiency and quality of care rendered. It is no longer enough to tell people that they have not been cheated or just that the fee for a given service is not too high. They need assurance that they are receiving a good

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Techniques for Meaningful Review

The last question is probably the hardest. Once we have decided that review is necessary, what techniques can we use to make this review truly meaningful? How do we do it? The traditional technique for peer review has been the use of a Grievance Committee or Insurance Review Committee which simply looks at those physicians about whom there has been a complaint—usually already known to all the doctors in the area. But, what we're speaking of now goes well beyond this system. In a number of parts of the country it has been possible, particularly under the government programs, but not only under them, to do a form of total claims review by computer. This will give a gross review of a man's practice. From this can be developed a number of statistics: the number of visits per day; the number of visits per patient; the number of visits per diagnosis; the number of shots given per visit; the number of lab x-ray tests per visit; and from this, one may obtain an overall view of a physician's practice. Dr. Donald Harrington of the San Joaquin County Foundation has done a great deal of work on this, initially only on private insurance company contracts, later on Medicaid as well, and has been able to set up parameters of electronic observation which have enabled him to spot "deviant practitioners." Those doctors who have an unusual number of injections per patient visit in the office or others who never seem to be able to see a patient without doing a urinalysis or blood count, those who must see a patient two or three times a week for a rather routine diagnosis such as osteoarthritis, etc. Doctor Harrington would be the first to tell you that you cannot leap to conclusions simply from a computer analysis.

There are all sorts of reasons for variations from the norm in practice. The mere fact that a man practices in a different way is no proof at all that he is a "bad" practitioner. In this country, and particularly in medicine, uniformity and conformity are not necessarily the ideal.

There are other reasons for the inherent errors in the computer method including

local variations, particularly the differences in style of practice between rural and urban doctors and of the disadvantaged areas versus the middle class suburbs.

The next step must always be to pull out the original claims forms for review. Here one can look over the number of tests ordered and paid for on the basis of the diagnosis and, also, the amount of treatment and its relevance to the diagnosis placed upon the claims form. Once the peer review committee has gone through the computer analyses, selected from it those claims forms it needs for review and then reviewed these forms from unusual practitioners, it still has not established the fact that the doctor involved practiced a poor quality of care.

Let me give you an example. In my former county, Santa Clara, we have a moderate size city, San Jose, with some 400,000 citizens. The city is split by Highway 101. On the West side of the highway are the English speaking citizens, generally from the lower middle class on up. On the East side of the highway are the Spanish speaking citizens, usually of lower income groups. In reviewing claims under our Medicaid program, which review is done by the County Medical Society, we found the Spanish speaking doctors East of the highway invariably gave penicillin injections to children with a cold. We Anglos, of course, were certain we had spotted an obvious abuse of the program. A group of men who were committing malpractice simply in order to collect extra funds for giving shots under the program. A committee of righteous, outraged county society members descended upon our Spanish speaking confreres in order to bring the wayward brothers back into the fold. Well, the message was delivered alright, but it was we who got the message.

It appears that in this type of community, among the lower income Mexican-Americans, faith in physicians is erratic and on a semi-mystical basis. The doctor is given one chance at the illness. When the baby has a cold, he and the rest of the family are bundled up and brought into the doctor. Whatever the doctor does is fine with the mother, but no matter how much sicker the child gets afterward, he will not be brought

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Existing ailments* are fully covered after a period of 12 consecutive months from the effective date of your insurance during which time there has been no medical advice or treatment for such condition.

*Conditions for which medical advice or treatment was rendered within twelve months prior to the effective date.

PERMANENCY OF COVERAGE

Your insurance cannot be cancelled by the company nor your renewal refused regardless of the number of claims you make as long as the premiums are paid.

Recurrent periods of hospital confinement for the same or related causes, not separated by six consecutive months or more, continue use of the original 365-day benefit period since they would be considered as one accident or sickness.

Your insurance takes effect on the 1st of the month immediately following receipt of your completed application. You will receive a certificate of insurance outlining your protection in detail.

SEMI-ANNUAL PREMIUMS

(Premiums increase with attained age)

Employees of members are eligible by paying appropriate premium.

		Under 40	40 - 49	50 - 59	60 - 64	
PLAN I \$40 DAILY HOSPITAL INDEMNITY	Member, Spouse & All Children	<input type="checkbox"/> \$97.10	<input type="checkbox"/> \$122.70	<input type="checkbox"/> \$160.10	<input type="checkbox"/> \$181.10	
	Member & Spouse	<input type="checkbox"/> 71.90	<input type="checkbox"/> 97.50	<input type="checkbox"/> 134.90	<input type="checkbox"/> 155.50	
	Single Member	<input type="checkbox"/> 32.70	<input type="checkbox"/> 43.90	<input type="checkbox"/> 63.70	<input type="checkbox"/> 78.30	
		Under 40	40 - 49	50 - 59	60 - 64	65 & Over
PLAN II \$20 DAILY HOSPITAL INDEMNITY	Member, Spouse & All Children	<input type="checkbox"/> \$48.80	<input type="checkbox"/> \$61.60	<input type="checkbox"/> \$80.30	<input type="checkbox"/> \$90.80	<input type="checkbox"/> \$71.60
	Member & Spouse	<input type="checkbox"/> 36.20	<input type="checkbox"/> 49.00	<input type="checkbox"/> 67.70	<input type="checkbox"/> 78.20	<input type="checkbox"/> 58.50
	Single Member	<input type="checkbox"/> 16.60	<input type="checkbox"/> 22.20	<input type="checkbox"/> 32.10	<input type="checkbox"/> 39.40	<input type="checkbox"/> 29.50

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back since there is not any reason to. "He's already seen the doctor." Further, remedies are likely to include prayer or forms of folk medicine. Furthermore, the mothers have very little faith in pieces of paper or long explanations. Telling the mother that she should take a prescription and fill it at a drug store and then to give pills to the child if he should get sicker, simply results in another piece of scrap paper in the waste basket by the front door of the doctor's office. Even giving samples of pills to be taken later is no assurance that the child will receive any further treatment. Therefore, if there is any possibility that the baby may develop bacterial bronchitis or pneumonia from the cold, the only assurance that he will survive is for the physician to actually place the penicillin into the child himself.

While we may all hope that in the future education and an elevation of income level will change this situation, for the present it continues to be malpractice or at the very least poor medical practice to give penicillin for colds in the English western half of the city, while it is malpractice not to do so East of the highway.

There are many other examples all of which add up to mean that the review of quality can only be done locally, it can only be done by people who can understand the variations and circumstances, which in the end means that it can only be done by other local physicians. It must be done by physicians, because lawyers for instance are so bound by technicalities that common sense or what is best for the people rarely enters their minds and to allow them control of the program would be disastrous.

For example, in one of our large cities in California, it became evident after a period of review that of eight minority doctors in one area, six were abusing the programs through over-utilization. Too many injections per patient visit, too many laboratory tests, etc. This assumption was reinforced by visits to their offices and, therefore, the county medical society recommended that they no longer be paid under the Medicaid program. The first two telephone calls to the medical society were from the other two

minority physicians—the "good" doctors in the area. They were terribly unhappy. "Are you trying to kill us? There are too many Medicaid patients already for the eight of us. Two of us even working 24 hours a day couldn't possibly handle the load, and we certainly couldn't give any quality of medical care. You must keep the other six doctors working for the good of the people of our part of the city."

The Medical Society was understandably reluctant, but it also was understanding of the problem on the basis that even over-utilized medical care is better than none at all. Those doctors were reinstated in the program, although the County Medical Society has since attempted a practice educational process for them. Again, what this adds up to is that there must be local control of the program, there must be local understanding of local problems and there must be an interest on the part of physicians of the Medical Society in seeing that medical care is given to the people.

Let me make a summary about the benefits to be derived from this program. I have mentioned the direct benefits, of course, to the taxpayer, to the reviewing physician and to the physician who is reviewed, but there are other benefits, one of these comes from publicity. It is no secret that the medical profession has a "bad image." The knowledge that the doctors in the County Medical Society are spending hours reviewing the quality of care can only do good things for us. In the past, as you know, we have only allowed publication of bad publicity about doctors, so it is not surprising that we have a poor image. In the past, if the doctor did something good for a patient, we have forbidden this news to be printed because we felt it amounted to advertising. However, if something bad happened—a drunk driving conviction or malpractice suit—nothing the Medical Society could do would ever keep the news out of the paper. For this reason, our patients have read only unfavorable things about doctors and naturally formed that kind of an opinion. I might suggest as an aside to the principal subject that we may have to reconsider our entire concept of physician publicity. However, whether we need to change our atti-

tude toward publicity or not, there can be no doubt about or need for peer review.

The People of this country deserve to know their medical care is all it should be. The best guarantee of this can be given only by the concerned physicians of an area

working together in an effective program of Peer Review:

1. Congress demands it;
2. Our patients deserved it; and
3. We need it.

—From *Missouri Medicine*, March, 1970

* * *

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Instructions to Contributors

Manuscripts submitted for consideration for publication in the JOURNAL OF THE TENNESSEE MEDICAL ASSOCIATION should be addressed to the Editor, Dr. R. H. Kampmeier, Vanderbilt University Hospital, Nashville, Tennessee 37203.

Manuscripts must be typewritten on one side of letter-weight paper. Either double or triple spacing and wide margins must be provided to facilitate editing which will be legible for the printer.

Bibliographic references should not exceed twenty in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to the style used in the American Medical Association publications, as,—Alais, F. G.: What Is Known About it, J. Tennessee M. A., 35:132, 1950.

Illustrations should be mounted on white cardboard, numbered and identified with the author's name. The editor will determine the number, if any, of illustrations to be used with the Journal assuming the cost of engravings and cuts up to \$25. Engraving cost for illustrations in excess of \$25 will be billed to the author.

If reprints are wanted, the desired number should be indicated in the letter accompanying the manuscript. No reprints are provided free and a reprint cost schedule will be forwarded upon request.

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VOLUME 63

JUNE, 1970

NO. 6

Abstract of the Proceedings of the House of Delegates Of the Tennessee Medical Association Memphis, Tennessee – April 8-11, 1970

The House of Delegates of the Tennessee Medical Association met in Memphis, Tennessee with headquarters in the Sheraton-Peabody Hotel, April 8-11, 1970, in conjunction with the 135th Annual Meeting of the Association, with Dr. R. L. DeSaussure, Speaker of the House and Dr. R. H. Haralson, Vice-Speaker, presiding.

The invocation was rendered by Dr. John H. Burkhart, Knoxville:

DR. JOHN H. BURKHART: "Almighty God, Our Father, before we begin the business of this House of Delegates, we look to Thee for guidance and inspiration. We believe most fervently that as practitioners of a noble profession we have been called to be servants of God by being healers of men. We thank Thee for the love by which we are created, the grace by which we are sustained, and the mercy by which we are preserved. May these same qualities, to the degree in which we as mortals may be capable of them, determine the extent to which we respond to Thy call. Bestow, we pray, Thy blessings on us all, our families, our colleagues, the societies which we represent, and the work we seek to achieve. Where we may lack the virtues of patience, endurance, fairness, respect for other opinions, openmindedness, and a sense of moral rightness, strengthen these attributes in us, so that whatever we do as this House of Delegates listens, deliberates, and acts, may be done to the greater glory of God and the larger benefit of mankind. Amen."

1969 Minutes Approved

The Speaker announced that the Minutes of the last regular session of the House were reproduced in the June, 1969, issue of the JOURNAL OF TMA, and requested that a motion be presented to approve the pro-

ceedings as published. It was moved, seconded, that the Minutes of the 1969 regular session of the House of Delegates be approved as published in the June, 1969, issue of the JOURNAL. **The motion was adopted.**

Reference Committees

The Speaker announced the personnel of the Reference Committees to consider reports, resolutions, amendments, and all matters requiring action by the House of Delegates.

Committee on Credentials

James N. Proffitt, Chairman, Maryville
J. Howard Ragsdale, Union City
J. S. Johnson, Gainesboro

Committee on Amendments to the Constitution and By-Laws

C. Gordon Peerman, Chairman, Nashville
Charles C. Smeltzer, Knoxville
John B. Dorian, Memphis

Reference Committee A

Henry G. Rudner, Jr., Chairman, Memphis
David H. Turner, Chattanooga
Herman J. Kaplan, Nashville

Reference Committee B

Robert A. Waters, Chairman, Chattanooga
K. J. Phelps, Lewisburg
Tinnin Martin, Jr., Memphis

Reference Committee C

Perry M. Huggin, Chairman, Knoxville
J. Malcolm Aste, Memphis
James W. Ellis, Nashville

Reference Committee D

William K. Owen, Chairman, Pulaski
Charles E. Allen, Johnson City
R. A. Calandruccio, Memphis

Committee on Outstanding Physician of the Year

G. Baker Hubbard, Chairman, Jackson
K. M. Kressenberg, Pulaski
Edward T. Newell, Jr., Chattanooga

Nominating Committee

As required in the By-Laws, the Board of Trustees, in its January meeting, appointed a Nominating Committee with representatives from each of the three grand divisions of the state. The Speaker announced the personnel of the committee, some of whom were late substitutions for members who could not be present:

East Tennessee:

E. Kent Carter, Kingsport
John H. Burkhart, Knoxville
David P. McCallie, Chattanooga

Middle Tennessee:

William H. Edwards, Nashville
John O. Williams, Mt. Pleasant
Joseph Willoughby, Franklin

West Tennessee:

Laurence W. Jones, Union City
C. D. Hawkes, Memphis
Thomas K. Ballard, Jackson

ELECTION OF OFFICERS AND COUNCILORS April 11, 1970

The report of the Nominating Committee was presented in the second session of the House of Delegates on Saturday, April 11. Nominees submitted by the Committee were voted upon individually and in each instance, the Speaker called for additional nominations from the floor.

President-Elect—John H. Saffold, Knoxville

Speaker—House of Delegates—R. L. DeSaussure, Memphis

Vice Speaker—House of Delegates—R. H. Haralson, Jr., Maryville

Vice-President (East Tennessee)—E. Kent Carter, Kingsport

Vice-President (Middle Tennessee)—William K. Owen, Pulaski

Vice-President (West Tennessee)—J. Kelley Avery, Union City

Secretary—Morse Kochtitzky, Nashville

AMA Delegate (East Tennessee)—John H. Burkhart, Knoxville (January, 1971-December, 1972)

AMA Delegate (State At Large)—Tom E. Nesbitt, Nashville (January, 1971-December, 1972)

AMA Alternate Delegate (East Tennessee)—Harmon L. Monroe, Erwin (January, 1971-December, 1972) (Since his election and the Annual Meeting, Dr. Monroe is deceased.)

AMA Alternate Delegate (State At Large)—A. Roy Tyrer, Jr., Memphis (January, 1971-December, 1972)

TRUSTEES:

Middle Tennessee—C. Gordon Peerman, Nashville (1973)

East Tennessee—Edward G. Johnson, Chattanooga (1971) (Dr. Johnson is filling unexpired term of Dr. Saffold.)

COUNCILORS:

First District—Alvin S. Crawford, Bristol (1972)

Third District—Harry A. Stone, Chattanooga (1972)

Fifth District—George L. Smith, Winchester (1972)

Seventh District—Kenneth J. Phelps, Lewisburg (1972)

Ninth District—Laurence W. Jones, Union City (1972)

Nominees for Public Health Council: (Three from Middle Tennessee, one of whom will be subsequently appointed by the Governor.)

Middle Tennessee:

Kirkland W. Todd, Jr., Nashville
Samuel H. Hay, Murfreesboro
Gordon Turner, Centerville

Nominees for Board of Trustees of the State Chest Disease Hospitals: (Three from Middle Tennessee. One nominee will be subsequently appointed by the Governor.)

H. R. Anderson, Nashville
Anne Bolner, Fayetteville
Carl Stubblefield, Shelbyville

THE ABOVE NOMINEES WERE ELECTED BY THE HOUSE OF DELEGATES

TENNESSEE'S OUTSTANDING PHYSICIAN OF THE YEAR

Dr. Robert C. Kimbrough, Madisonville, was named Outstanding Physician of the Year in Tennessee for 1970. His election was by the House of Delegates.

Dr. Kimbrough was born in the Rural Vale Community in Monroe County on November 3, 1884. He graduated from Hiwassee College in Madisonville, entered the University of Nashville Medical College in 1905, and graduated in 1908 as the third ranked student in his graduating class. For twelve months in 1908 and 1909, he served as a member of the House staff in Bellevue Hospital in New York City. Dr. Kimbrough returned to his native county and has been in general practice since that time.

Dr. Kimbrough was one of the first to bring scientific medicine to his county. Early in his professional life, he made a habit of personal study as well as regular attendance at scientific meetings of his county and state medical associations. Dr. Kimbrough has served as Chairman of the Monroe County Board of Health, County Medical Examiner, County Physician, and Selective Service Physician for his community. In 1923, he supervised one of the first mass immunization programs in Tennessee, giving 28,000 doses of typhoid vaccine administered to residents of Monroe County.

Dr. Kimbrough has served his County Medical Society with distinction, having been repeatedly elected to the office of President and every other office in the Society. He has been a delegate to the TMA House on numerous occasions, has served as Vice President of the Tennessee Medical Association in 1949 and served on the Public Health Council from 1948 until 1963.

In nominating Dr. Kimbrough, his County Medical Society stated that his greatness does not rest on his impressive credentials, but on "his dawn 'til dusk service to his patients and his uplifting association with his fellow physicians."

AMENDMENTS TO CONSTITUTION AND BY-LAWS

Amendments to Constitution Lying on Table

The Speaker called for action on amendments to the Constitution lying on the Table from the last regular session of the House of Delegates. Amendment to the Constitution No. 1-69 was presented to the House of Delegates at its initial meeting in 1969, and re-

DISTINGUISHED SERVICE AWARD

Maston K. Callison, M.D., Memphis, was presented with the Distinguished Service Award during the Annual Meeting. The award was made at the banquet on April 10, and presented by the Board of Trustees.

Dr. Callison was selected for this honor for the many contributions that he has made to medical education in Tennessee and to medicine in general.

Dr. Callison was born July 14, 1917, in Knoxville. He attended the University of Tennessee and received his undergraduate degree in 1936. He received his medical degree at the University of Tennessee Medical Units at Memphis in 1939. He did graduate work at the University of Pennsylvania School of Medicine, and returned to Knoxville for his internship at General Hospital. Residency was taken at John Gaston Hospital at Memphis, after which Dr. Callison entered the U. S. Army serving as Chief, Medical Services, 27th Station Hospital in Berlin, Germany, and at Ft. Riley Station Hospital until his discharge in 1947.

Dr. Callison first received his appointment with the University of Tennessee College of Medicine as an instructor in medicine. In 1952 he was named Assistant Professor, and in 1957 Associate Professor. The following year, Dr. Callison was named Dean of the College of Medicine, a position he has held until his recent resignation.

Dr. Callison is certified by the American Board of Internal Medicine and is a fellow of the American College of Physicians. He serves on numerous boards of directors, including the Society for Crippled Children, Cancer Clinic and Goodwill Industries in West Tennessee, and is a member of the Executive Committee of St. Jude Hospital's Board of Governors, as well as a Board member of the Speech and Hearing Center. He has been active in the Memphis-Shelby County Medical Society, Tennessee Medical Association and American Medical Association. Dr. Callison's many contributions to medicine made him uniquely qualified to receive the Distinguished Service Award of the Tennessee Medical Association.

ferred to the Reference Committee for consideration. Constitutional Amendments No. 2-69 and No. 3-69 were also submitted at the 1969 session of the House.

By-Laws Amendment No. 2-69 was presented in the second session of the 1969

House and thus laid over until the 1970 session. As required in the Constitution, copies of the amendments and the recommendation of the 1969 Reference Committee was forwarded sixty days in advance of the annual session to all County Medical Societies.

Amendment to Constitution No. 1-69

Amend Article VIII, Section 2, Paragraph 1, of the Constitution of the Tennessee Medical Association to read:

"The Board of Trustees shall consist of the President of the Association, the Speaker of the House of Delegates, **the Vice-Speaker of the House of Delegates**, the immediate Past-President, the President-Elect, the Secretary, and six members elected by the House of Delegates as hereinafter provided."

Section 2, Paragraph 1 at present: "The Board of Trustees shall consist of the President of the Association, the Speaker of the House of Delegates, the immediate Past-President, the President-Elect, the Secretary, and six members elected by the House of Delegates as hereinafter provided."

The Reference Committee on Amendments to the Constitution and By-Laws in 1969 commented: "Testimony on both sides of the question was heard and was about equally divided. Those who advocated this change were of the opinion that the elevation of the Vice-Speaker to a position of membership on the Board of Trustees would strengthen the office, would increase its prestige, would take advantage of the Vice-Speaker's abilities and knowledge, and would make it easier to more equally divide the representation on the Board of Trustees according to the three grand divisions of the state. The principal objections to this change were that the addition of the Vice-Speaker to the Board of Trustees would create an even number of members numerically on the Board and which could result in a tie vote on matters which were controversial, that the present composition of the Board was satisfactory, that any enlargement of the Board, even by one, would tend to make it more unwieldy, and that the Vice-Speaker was really an officer in training who would benefit more from his attendance at the Board meetings than the Board would benefit from his vote. The Reference Committee agrees that there are excellent points on both sides of the ques-

tion, but feels that the present composition of the Board with eleven members is preferable and should not be changed to an even number and that the present practice of inviting the Vice-Speaker to all meetings of the Board of Trustees and extending to him the privilege of the floor, is sufficient." **The Reference Committee recommended rejection of Constitutional Amendment No. 1-69.**

ACTION: THE HOUSE OF DELEGATES APPROVED THE RECOMMENDATION OF THE REFERENCE COMMITTEE AND CONSTITUTIONAL AMENDMENT NO. 1-69 WAS NOT ADOPTED.

Amendment to Constitution No. 2-69

Amend Article VIII, Section 4, of the Constitution of the Tennessee Medical Association to read:

"The President-Elect, the three Vice-Presidents, a Secretary, the Speaker of the House of Delegates, and **the Vice-Speaker of the House of Delegates** shall be elected annually for one year. The Speaker of the House of Delegates, the Vice-Speaker of the House of Delegates, and the Secretary shall hold office for not more than **three consecutive years**. **No two of these three officers shall be from the same grand division of the state.** The President-Elect will assume office as President of the Association at the expiration of the term of the President."

Section 4 at present: "The President-Elect, the three Vice-Presidents, a Secretary and the Speaker of the House of Delegates shall be elected annually for one year. The Speaker of the House and the Secretary shall hold office for not more than four consecutive years. The President-Elect shall assume office as President at the expiration of the term of the President."

The Reference Committee commented on testimony heard on the amendment and recommended: (1) rejection of the proposal to prohibit any two of the offices of Speaker, Vice-Speaker, or Secretary from being from the same grand division of the state; (2) rejection of the provision that the officers named shall hold office for not more than three consecutive years; and (3) adoption of the portion of the amendment that would add the Vice-Speaker to the list of officers who are elected annually for one year.

ACTION: THE HOUSE APPROVED THE RECOMMENDATION OF THE REF-

ERENCE COMMITTEE AND ADOPTED ONLY THE PORTION OF CONSTITUTIONAL AMENDMENT NO. 2-69 THAT WOULD ADD THE VICE-SPEAKER TO THE LIST OF OFFICERS WHO ARE ELECTED ANNUALLY FOR ONE YEAR. THE OTHER TWO PROPOSED CHANGES IN SECTION 4, ARTICLE VIII, WERE REJECTED.

Amendment to Constitution No. 3-69

Amend Article VIII, Section 7, of the Constitution of the Tennessee Medical Association to read:

"All officers of the Association shall be elected at the second regular session of the House of Delegates and they shall assume office at the close of the final regular session of the House of Delegates."

Section 7 at present: "All officers of the Association shall be elected at the second regular session of the House of Delegates, and they shall assume office when elected."

The Reference Committee recommended adoption of Constitutional Amendment No. 3-69 which would merely provide in the Constitution that which is already current practice wherein the officers of the Association shall assume office at the close of the final regular session of the House of Delegates rather than upon their election.

ACTION: THE HOUSE OF DELEGATES APPROVED THE RECOMMENDATION OF THE REFERENCE COMMITTEE AND ADOPTED CONSTITUTIONAL AMENDMENT NO. 3-69.

Amendment to By-Laws No. 2-69

Amend Chapter VI, Section 4, of the By-Laws of the Tennessee Medical Association to read:

"The Speaker of the House of Delegates shall preside over that body and perform the usual duties of such officer. He shall sign the minutes of its transactions when same have been read and approved by the House. In the event of his absence for any cause, or upon request of the Speaker, the Vice-Speaker of the House of Delegates shall perform these duties. The Speaker of the House of Delegates and the Vice-Speaker of the House of Delegates shall be ex-officio members of the Board of Trustees."

Section 4 at present: "The Speaker of the House of Delegates shall preside over that body and perform the usual duties of such officer. He shall sign the minutes of its transactions

when same have been read and approved by the House. In the event of his absence for any cause, or upon request of the Speaker, the Vice-Speaker of the House of Delegates shall perform these duties. The Speaker shall also be ex-officio member of the Board of Trustees."

This proposed Amendment was contingent upon the action of the House of Delegates on Constitutional Amendment No. 1-69 which would add the Vice-Speaker to the membership of the Board of Trustees. Since CA—No. 1-69 was rejected, NO ACTION WAS TAKEN ON BY-LAW AMENDMENT NO. 2-69.

Amendments Introduced in 1970

The Reference Committee on Amendments to the Constitution and By-Laws considers all proposed amendments to both the Constitution and By-Laws. Under the required waiting period, all Constitutional Amendments introduced in 1970 will be presented for action by the House of Delegates in 1971. Three amendments to the Constitution and seven amendments to the By-Laws were presented to the House of Delegates and referred to the Reference Committee for consideration.

Amendment to Constitution No. 1-70

Amend Article VIII, Sections 3 and 5 of the Constitution of the Tennessee Medical Association to read:

SECTION 3: "There shall be one councilor for each of the councilor districts in Tennessee and such councilor districts shall be divided into sections to include those counties in each of the councilor districts as defined by the action of the House of Delegates in April, 1970, and listed in this section. Councilors shall be appointed by the President each year prior to the Annual Session of the House of Delegates subject to the approval of the House of Delegates. The councilors shall be elected for a term of two years, in the following manner: councilors from odd numbered districts will be elected in even calendar years and councilors from even numbered districts will be elected in odd calendar years. No councilor shall serve more than four consecutive years. The councilor districts shall be composed of the counties as listed in each of the following ten districts:

"District No. 1: Carter, Claiborne, Cocke, Grainger, Greene, Hancock, Hawkins, Johnson, Sullivan, Unicoi, Washington.

"District No. 2: Anderson, Blount, Campbell,

Cumberland, Hamblen, Jefferson, Knox, Loudon, Morgan, Roane, Scott, Sevier, Union.

"District No. 3: Bledsoe, Bradley, Hamilton, Marion, McMinn, Meigs, Monroe, Polk, Rhea.

"District No. 4: Clay, DeKalb, Fentress, Jackson, Macon, Overton, Pickett, Putnam, Smith, Van Buren, Warren, White.

"District No. 5: Bedford, Coffee, Franklin, **Grundy**, Lincoln, Moore, **Sequatchie**.

"District No. 6: Cannon, Cheatham, Davidson, Dickson, Houston, Montgomery, Robertson, Rutherford, Stewart, Sumner, Trousdale, Williamson, Wilson.

"District No. 7: Giles, Hickman, Humphreys, Lawrence, Lewis, **Marshall**, Maury, Wayne.

"District No. 8: Benton, Carroll, Chester, Crockett, Decatur, Fayette, Gibson, Hardeman, Hardin, Haywood, Henderson, Madison, McNairy, **Perry**.

"District No. 9: Dyer, Henry, Lake, Lauderdale, Obion, Weakley.

"District No. 10: Shelby, Tipton.

"The Council shall organize annually by the election of a Chairman and a Secretary."

SECTION: 5 "The President, **Secretary-Treasurer**, and Speaker of the House of Delegates shall be ex-officio members of the **Judicial Council** without vote."

Section 3 at present: "There shall be one councilor for each of the ten councilor districts in Tennessee and such councilor districts shall be divided into sections to include those counties in each of the councilor districts as defined by the action of the House of Delegates in April, **1961**, and listed in this section. The Councilors shall be elected for a term of two years, in the following manner: councilors from odd numbered districts will be elected in even calendar years and councilors from even numbered districts will be elected in odd calendar years. No councilor shall serve more than four consecutive years. The councilor districts shall be composed of the counties as listed in each of the following ten districts:

"District No. 1: Carter, Claiborne, Cocke, Grainger, Greene, Hancock, Hawkins, Johnson, Sullivan, Unicoi, Washington.

"District No. 2: Anderson, Blount, Campbell, Hamblen, Jefferson, Knox, Loudon, Morgan, Roane, Scott, Sevier, Union.

"District No. 3: Bledsoe, Bradley, **Grundy**, Hamilton, Marion, McMinn, Meigs, Monroe, Polk, Rhea, **Sequatchie**.

"District No. 4: Clay, **Cumberland**, DeKalb, Fentress, Jackson, Macon, Overton, Pickett, Putnam, Smith, Van Buren, Warren, White.

"District No. 5: Bedford, Coffee, Franklin, Lincoln, **Marshall**, Moore.

"District No. 6: Cannon, Cheatham, Davidson, Dickson, Houston, Montgomery, Robertson, Rutherford, Stewart, Sumner, Trousdale, Williamson, Wilson.

"District No. 7: Giles, Hickman, Humphreys, Lawrence, Lewis, Maury, **Perry**, Wayne.

"District No. 8: Benton, Carroll, Chester, Crockett, Decatur, Fayette, Gibson, Hardeman, Hardin, Haywood, Henderson, Madison, McNairy.

"District No. 9: Dyer, Henry, Lake, Lauderdale, Obion, Weakley.

"District No. 10: Shelby, Tipton.

"The Council shall organize annually by the election of a Chairman and a Secretary."

Section 5 at present: "The President, **Secretary**, and Speaker of the House of Delegates shall be ex-officio members of the Council without vote."

The Reference Committee commented on testimony heard on the proposed amendment and recommended that the proposed change in the method of electing the councilors in paragraph one of Section 3 not be adopted. The Reference Committee recommended that the other changes in Constitutional Amendment No. 1-70, including the redistricting and the amendments to Section 5, be adopted.

TO BE ACTED UPON BY THE HOUSE OF DELEGATES IN THE NEXT REGULAR SESSION IN 1971.

Amendment to Constitution No. 2-70

Amend Article VIII, Sections 1, 2, 4, 5 and 8 of the Constitution of the Tennessee Medical Association to read:

SECTION 1: "The officers of the Association shall be a President, President-Elect, a Vice-President for each of the three grand divisions of the State, the elected Trustees, **the** Councilors, a Speaker of the House of Delegates, and a Vice-Speaker of the House of Delegates."

SECTION 2: "The Board of Trustees shall consist of the President of the Association, the Speaker of the House of Delegates, the immediate Past-President, the President-Elect, and members elected by the House of Delegates as hereinafter provided.

"**Nine** members of the Board of Trustees shall be elected by the House of Delegates, **three** from each grand division of the State and no two will be from any one component society. "The elected Trustees shall serve for a period of three years and no Trustee shall be eligible immediately to succeed himself. The Board of Trustees will organize by the election of a Chairman and a **Secretary-Treasurer** from the **nine** elected as Trustees."

SECTION 4: "The President-Elect, the three Vice-Presidents, and the Speaker of the House of Delegates shall be elected annually for one year. The Speaker of the House shall hold office for not more than four consecutive years. The President-Elect shall assume office as

President at the expiration of the term of the President."

SECTION 5: "The President, **Secretary-Treasurer**, and Speaker of the House of Delegates shall be ex-officio members of the **Judicial Council** without vote."

SECTION 6: "Every officer shall hold office until his successor is elected and assumes office."

SECTION 7: "All officers of the Association shall be elected at the second regular session of the House of Delegates, and they shall assume office when elected."

SECTION 8: "**Only** a member who has been a member in good standing for five years next preceding the election, and is in attendance at the meeting shall be eligible for election as President-Elect."

Section 1 at present: "The officers of the Association shall be a President, President-Elect, a Vice-President for each of the three grand divisions of the State, a **Secretary**, the **six** elected Trustees, **ten** Councilors, a Speaker of the House of Delegates, and a Vice-Speaker of the House of Delegates."

Section 2 at present: "The Board of Trustees shall consist of the President of the Association, the Speaker of the House of Delegates, the immediate Past-President, the President-Elect, the **Secretary**, and **six** members elected by the House of Delegates as hereinafter provided.

"**Six** members of the Board of Trustees shall be elected by the House of Delegates, **two** from each grand division of the State, and no two will be from any one component society.

"The elected Trustees shall serve for a period of three years and no Trustee shall be eligible immediately to succeed himself. The Board of Trustees will organize by the election of a Chairman, and a **Treasurer** from the **six** elected as Trustees."

Section 4 at present: "The President-Elect, the three Vice-Presidents, a **Secretary** and the Speaker of the House of Delegates shall be elected annually for one year. The Speaker of the House and the **Secretary** shall hold office for not more than four consecutive years. The President-Elect shall assume office as President at the expiration of the term of the President."

Section 5 at present: "The President, **Secretary**, and the Speaker of the House of Delegates shall be ex-officio members of the Council without vote."

Section 6 at present: "Every Officer shall hold office until his successor is elected and assumes office."

Section 7 at present: "All officers of the Association shall be elected at the second regular session of the House of Delegates, and they shall assume office when elected."

Section 8 at present: "**No** member who has **not** been a member in good standing for five years next preceding election, **or who is not**

in attendance at the meeting shall be eligible for election as President-Elect."

The Reference Committee commented on testimony heard on the amendment and recommended that the last clause, "and no two will be from any one component society," in paragraph 2 of Section 2, be deleted.

CA—NO. 2-69, adopted by the House of Delegates, added the Vice-Speaker to the list of officers to be elected annually for one year; and CA—No. 3-69 amended Section 7 to provide that the officers "shall assume office at the close of the final regular session of the House of Delegates." The Chairman of the Reference Committee called attention to these changes which should be made in Constitutional Amendment No. 2-70.

The Reference Committee approved the other changes in the Amendment which were for clarity and recommended adoption of CA—No. 2-70 as amended. It was the opinion of the Reference Committee that if the Amendment to the Constitution is not accepted in this amended form, the present Constitution should not be amended.

TO BE ACTED UPON BY THE HOUSE OF DELEGATES IN THE NEXT REGULAR SESSION IN 1971.

Amendment to Constitution No. 3-70

Amend Article IX, Section 2 and Section 4 of the Constitution of the Tennessee Medical Association to read:

SECTION 2: "The **Secretary-Treasurer** of this Association shall be the custodian of all the funds of the Association."

SECTION 4: "In the event of a vacancy by death or resignation of any member of the Board of Trustees between the Annual Meeting of the Association, the Vice-President for that division of the State in which the vacancy occurs, shall serve as a member of the Board of Trustees until the next annual meeting. **In the event of a vacancy as the result of the resignation of one of the members of the Board of Trustees during the Annual Meeting, the Nominating Committee shall report its selection of a nominee for election by the House of Delegates to fill the unexpired term of the member who has resigned from the Board of Trustees.**"

The Reference Committee commented on the purpose of the amendment and recommended that Constitutional Amendment No. 3-70 be adopted.

TO BE ACTED UPON BY THE HOUSE OF DELEGATES IN THE NEXT REGULAR SESSION IN 1971.

Amendment to By-Laws No. 1-70

Amend the By-Laws of the Tennessee Medical Association by deleting Chapter VIII in its entirety and substituting a revised Chapter VIII. Chapter VIII, as amended would implement the following changes in the division and committee system of the Association:

1. The five "Divisions" under which all TMA Committees are administered are changed to "Commissions." The "Commissions" established are: Commission on Scientific Services; Commission on Legislation and Governmental Medical Affairs; Commission on Health Services and Socio-Economics; Commission on Communications and Public Service; Commission on Medical Education. The Standing and Special Committees assigned to each Commission are listed.
2. A new permanent standing **Committee on Constitution and By-Laws** has been established.
3. The **Interprofessional Liaison Committee**, the **Committee on Governmental Medical Services**, and the **Committee on Continuing Medical Education**, previously established as special committees, are changed to standing committees of the Association.
4. The **Committee for Utilization Review** and the **State Claims Review Committee**, previously established as special committees, have been replaced by a state **Peer Review Committee**, which will be a Standing Committee of the Association.
5. The **Rural Health Committee** has been changed from a standing committee to a special committee of the Association. The **Committee on Memoirs**, formerly a standing committee, and the **Tennessee Committee for the American Medical Association Education and Research Foundation**, formerly a special committee, have been changed to committees of the Board of Trustees. The **Committee on Tennessee Medical Foundation** has been changed from a Standing Committee to a special stand-by committee.
6. The **Advisory Committee to the State Department of Public Welfare** has been discontinued and its duties assigned to the Committee on Governmental Medical Services. The **Committee on Cancer** and the **Committee on Sight Conservation** have also been discontinued.
7. The **Sub-Committee on Hospital Accreditation** of the Committee on Hospitals is changed to a special committee of the Association.
8. The names of the following standing com-

mittees are changed: Committee on Scientific Work and Postgraduate Education to **Committee on Scientific Affairs**; Committee on Legislation and Public Policy to **Committee on Tennessee Medical Association Group Insurance**; Committee on Health Insurance to **Committee on Socio-Economics of Health Care**.

9. Sections 9 through 21 of the Amendment define the duties and establish the composition of the Standing Committees of the Association as revised in this Amendment.

All Standing and Special Committees of the Association would be established under the five major Commissions as follows:

Commission on Scientific Services

Committee on Scientific Affairs (Standing Committee)

Committee on Emergency Medical Services

Committee on Environmental & Occupational Health

Committee on Blood Banks and Medical Laboratories

Committee on Mental Health

Committee on Rehabilitation

Commission on Legislation and Governmental Medical Affairs

Committee on Legislation (Standing Committee)

Liaison Committee to the Public Health Department (Standing Committee)

Committee on Governmental Medical Services (Standing Committee)

Committee on Comprehensive Health Planning

Committee on Regional Medical Programs

Commission on Health Services and Socio-Economics

Committee on Hospitals (Standing Committee)

Committee on Hospital Accreditation

Committee on TMA Group Insurance (Standing Committee)

Committee on Socio-Economics of Health Care (Standing Committee)

Peer Review Committee (Standing Committee)

Mediation Committee (Standing Committee)

Commission on Communications and Public Service

Communications and Public Service Committee (Standing Committee)

Rural Health Committee

Advisory Committee to the Woman's Auxiliary

Committee on Health Project Contest

Interprofessional Liaison Committee (Standing Committee)

Committee on Youth and Education

Committee on Medicine and Religion

Commission on Medical Education

Liaison Committee to Medical Schools in Tennessee

Committee on Continuing Medical Education (Standing Committee)

The Reference Committee commented:
"The discussion of this proposed amend-

ment during the Committee's deliberations was favorable. The only area of disagreement occurred in the change of the terminology from Division to Commissions." After consideration, it was felt that the change of the designation of Division was not desirable and the Committee recommended retaining the designation of Division. The Reference Committee recommended adoption of By-Law Amendment No. 1-70 as amended.

ACTION: ADOPTED AS AMENDED

Amendment to By-Laws No. 2-70

Amend the By-Laws of the Tennessee Medical Association by deleting Chapter VII in its entirety and substituting in lieu thereof the following:

SECTION 1: "The Judicial Council shall hold meetings during the Annual Session of the House of Delegates, and at such other times as necessity may require, subject to the call of the Chairman or on petition of three Councilors. Following the election of Councilors during the Annual Session of the House of Delegates, the Judicial Council shall meet for organizational purposes and to outline its work for the ensuing year. The Judicial Council shall keep a permanent record of its proceedings. Five Councilors shall constitute a quorum."

SECTION 2: "The Judicial Council shall have the power to censure, suspend, expel, or to take such other disciplinary action with respect to members or component societies as in the exercise of its discretion it may deem proper under the circumstances."

SECTION 3: "A Councilor shall be designated by the Chairman to investigate each matter referred to the Judicial Council relating to allegedly improper conduct of members and/or activities of component societies. Such Councilor shall report in writing his findings to the Judicial Council and may participate in the Judicial Council's discussion of the matter which he investigated, but he shall not be entitled to vote thereon."

SECTION 4: "(a) The Judicial Council shall hold hearings on all matters relating to the censure, suspension, expulsion, or other disciplinary action of any member. The Judicial Council shall also hold hearings with respect to the censure of any component society, with respect to the revocation or suspension of its Charter, or with respect to any other matter affecting its relationship with the Association. Such hearings shall be conducted by no less than five members of the Judicial Council, excluding the investigating member who shall not be eligible to participate therein. A mem-

ber or component society against whom a charge is made shall be given fifteen days written notice of the hearing and the charges against him or it. Such member or component society shall have the right to be represented by counsel and shall be entitled to a full and equitable hearing.

"(b) The Judicial Council shall make a written report of its decision within thirty days after the conclusion of the hearing and shall mail a copy of the report to the member or component society with respect to whom the matter relates, and a copy to the President of the Association.

"(c) The decision of the Judicial Council shall be final and binding on all parties unless within thirty days from the date on which the decision was mailed, as hereinbefore provided, an aggrieved member or component society mails a written notice of appeal to the President of the Association with a copy to the Executive Director. Thereafter, within sixty days, the President shall convene the House of Delegates for the purpose of having the House hear such appeal. All interested parties shall be given at least twenty days written notice of such hearing and shall have the right to be represented by counsel.

"(d) The House of Delegates shall make a written report of its decision and mail a copy of the same to the member or component society with respect to whom the matter relates. The decision of the House of Delegates shall be final.

"(e) All notices required to be sent hereunder shall be sent by certified mail, return receipt requested."

SECTION 5: "The President of the Association shall notify the Board of Medical Examiners of the State of Tennessee of any final decision of the Judicial Council or any decision of the House of Delegates which involves a finding that a member has been guilty of unprofessional or dishonorable conduct as defined in Tennessee Code Annotated 63-613 (or any amendment thereof adopted after the effective date of this amendment to the By-Laws of the Association."

Section 1 at present: "The Council shall hold meetings during the Annual Meeting of the Association, and at such other times as necessity may require, subject to the call of the Chairman or on petition of three Councilors. Following the election of Councilors in the second session of the House of Delegates, the Council shall meet for organization, and for the outlining of work for the ensuing year. At this meeting it shall keep a permanent record of its proceedings. Five Councilors shall constitute a quorum."

Section 2 at present: "Each Councilor shall be the representative of the Tennessee Medical Association in his District in matters pertaining to the conduct of members and of com-

ponent societies. He shall make investigations and suggest solutions of problems which come to his attention. He shall make annually a written report of his activities to the Council." Section 3 at present: "The Council may recommend to the House of Delegates censure, suspension, or expulsion of any member; or recommend to the House of Delegates censure or revocation of the Charter of any component society after a hearing before such persons and in such manner as the Council shall direct at which the accused member or component society, with or without counsel, shall be given an opportunity for a full and equitable hearing; or may suspend or drop from membership any member for the non-payment of dues. Any member shall be dropped from membership automatically upon the filing by any person with the Council of a certified copy of the final order of revocation of license of such member by any tribunal of competent jurisdiction. Any member suspended, expelled, or dropped from the membership may be reinstated by the affirmative vote of the majority of the House of Delegates upon recommendation of the Council. It shall make such report or recommendation to the House of Delegates as it deems to the best interest of the Association."

The Reference Committee commented: "This Amendment to the By-Laws changes the name of the Council to the Judicial Council and more specifically spells out the duties of the Judicial Council. This also gives the Judicial Council the power to censure, suspend, expel or take any other disciplinary action with respect to members or component societies that they deem proper. Testimony on this proposed Amendment in general favored the more specific delineation of the Council's duties. Most of the testimony also supported empowering the Judicial Council to make decisions without referring them to the House of Delegates. It is expected that with peer review, the Council's activities will markedly increase. In order to expedite this important work of the TMA, it would be impracticable, if not impossible, to have the House of Delegates convene for each recommendation by the Council.

The Reference Committee recommended that an addition be made to Section 3 which would state: "The Councilor shall be responsible for indoctrination in all matters of ethics of each new member of the TMA on an annual basis." It was felt that this addition to the Amendment would aid in the in-

doctrination of the new members of the Association and would insure that new members in the less populated areas, where no large medical society exists would be properly indoctrinated and have an opportunity for personal communication with his District Councilor.

The Reference Committee recommended adoption of By-Law Amendment No. 2-70 as amended.

THIS PROPOSED AMENDMENT TO THE BY-LAWS IS CONTINGENT UPON THE ACTION OF THE HOUSE OF DELEGATES ON A CONSTITUTIONAL AMENDMENT AND THEREFORE WILL BE ACTED UPON IN THE NEXT REGULAR SESSION IN 1971.

Amendment to By-Laws No. 3-70

Amend Chapter XII, Sections 2, 4, 5 and 6 of the By-Laws of the Tennessee Medical Association to read:

SECTION 2: "Charters shall be issued only upon approval of the House of Delegates, and shall be signed by the President and **Secretary-Treasurer** of this Association. The House of Delegates shall have authority to revoke the Charter of any component Society, whose actions are in conflict with the letter or spirit of this Constitution and By-Laws, or the code of ethics of the American Medical Association upon recommendation of the **Judicial Council**, after a hearing as set forth in Section 3 of Chapter VII of these By-Laws."

SECTION 4: "Only one component Medical Society shall be chartered in any County. When more than one County Society exists, friendly overtures and concessions shall be made, with the aid of the Councilor for the District, if necessary, and all of the members brought into one organization. In case of failure to unite, an appeal may be made to the **Judicial Council**, which shall decide what action shall be taken."

SECTION 5: "Any physician who may feel aggrieved by the action of the Society in his County in refusing him membership, or in suspending or expelling him, shall have the right to appeal to the **Judicial Council**."

SECTION 6: "In hearing appeals, the Judicial Council may admit oral or written evidence, as in its judgment will best and more fairly present the facts, but in the case of every appeal, both as a Board and as individual Councilors in district and county work, efforts at conciliation and compromise should precede all such hearings. **Hearings will be conducted as set forth in Section 3 of Chapter VII.**"

Section 2 at present: "Charters shall be is-

sued only upon approval of the House of Delegates, and shall be signed by the President and **Secretary** of this Association. The House of Delegates shall have authority to revoke the Charter of any component Society, whose actions are in conflict with the letter or spirit of this Constitution and By-Laws, or the code of ethics of the American Medical Association upon recommendation of the Council."

Section 4 at present: "Only one component Medical Society shall be chartered in any County. When more than one County Society exists, friendly overtures and concessions shall be made, with the aid of the Councilor for the District, if necessary, and all of the members brought into one organization. In case of failure to unite, an appeal may be made to the Council, which shall decide what action shall be taken."

Section 5 at present: "Any physician who may feel aggrieved by the action of the Society in his County in refusing him membership, or in suspending or expelling him, shall have the right to appeal to the Council."

Section 6 at present: "In hearing appeals the Council may admit oral or written evidence, as in its judgment will best and more fairly present the facts, but in the case of evidence, as in its judgment will best and more fairly present the facts, but in the case of every appeal, both as a Board and as individual Councilors in district and county work, efforts at conciliation and compromise should precede all such hearings."

The Reference Committee recommended adoption of By-Law Amendment No. 3-70 subject to the proposed changes in the Constitution.

ACTION ON BY-LAW AMENDMENT NO. 3-70 IS CONTINGENT UPON ACTION BY THE HOUSE OF DELEGATES IN THE NEXT REGULAR SESSION IN 1971 ON CONSTITUTIONAL AMENDMENTS WHICH ARE GERMANE TO THE PROPOSED CHANGES IN THIS AMENDMENT.

Amendment to By-Laws No. 4-70

Amend Chapter VI, Section 6 and Section 7 of the By-Laws of the Tennessee Medical Association to read:

SECTION 6: "The Editor of the Journal shall be appointed by the Board of Trustees. The Editor shall act with the Committee on Scientific **Affairs** to prepare and issue programs for the meetings of the Association.

"As Editor of the Journal, he may select an Editorial Board to be composed of as many members as he deems administratively desirable, subject to the approval of the Board

of Trustees. The Editor's honorarium shall be determined by the Board of Trustees."

SECTION 7: "The Board of Trustees shall be empowered to select and remove, without assigning cause, an Executive Director. The Executive Director may or may not be a member of this Association, and may or may not be a graduate in medicine. He shall be custodian of all records, books, papers, building and property belonging to the Association, except such property belonging to the Editor of the Journal, the **Judicial** Council, the Sections and the various committees, and shall keep account of and promptly turn over to the **Treasurer** all funds of the Association which may come into his hands; he shall provide for the registration of members and delegates at the Annual Meeting; and upon request, shall transmit a copy of this list to the American Medical Association. Insofar as in his power, he shall use the printed matter, correspondence, and influence of his office to aid the Councilors in the organization of the component societies and in the extension of the power and influence of this Association. He shall visit each Councilor district at least once a year and oftener, if advisable, and assist the Councilors in organizing unorganized counties, and use every means possible to promote the interests of the Association. He shall conduct the official correspondence, notifying members of meetings, officers of their election, and committees of their appointment and duties. He shall serve as Recorder for the House of Delegates. He shall discharge such other duties as the Board of Trustees shall direct. He shall act as business manager of the Journal of the Association, and he shall be the director of all activities in the central office. His salary shall be determined by the Board of Trustees. He shall be required to furnish bond paid for by the Association in the amount designated by the Board of Trustees."

Section 6 at present: "The Editor of the Journal shall be appointed by the Board of Trustees. The Editor shall act with the Committee on Scientific **Work** to prepare and issue programs for the meetings of the Association. "As the Editor of the Journal, he may select as an Editorial Board to be composed of as many members as he deems administratively desirable, subject to the approval of the Board of Trustees. The Editor's honorarium shall be determined by the Board of Trustees."

Section 7 at present: "The Board of Trustees shall be empowered to select and remove, without assigning cause, an Executive Director. The Executive Director may or may not be a member of this Association, and may or may not be a graduate in medicine. He shall be custodian of all records, books, papers, building and property belonging to the Association, except such property belonging to the Editor of the Journal, the Council, the Sec-

tions and the various committees, and shall keep account of and promptly turn over to the **Treasurer** all funds of the Association which may come into his hands; he shall provide for the registration of members and delegates at the Annual Meeting; and upon request, shall transmit a copy of this list to the American Medical Association. Insofar as in his power, he shall use the printed matter, correspondence, and influence of his office to aid the Councilors in the organization of the component societies and in the extension of the power and influence of this Association. He shall visit each Councilor district at least once a year and oftener, if advisable, and assist the Councilors in organizing unorganized counties, and use every means possible to promote the interests of the Association. He shall conduct the official correspondence, notifying members of meetings, officers of their election, and committees of their appointment and duties. He shall serve as Recorder for the House of Delegates. He shall discharge such other duties as the Board of Trustees shall direct. He shall act as business manager of the Journal of the Association and he shall be the director of all activities in the central office. His salary shall be determined by the Board of Trustees. He shall be required to furnish bond paid for by the Association in the amount designated by the Board of Trustees."

The Reference Committee recommended adoption of By-Law Amendment No. 4-70 subject to the proposed changes in the Constitution.

ACTION ON BY-LAW AMENDMENT NO. 4-70 IS CONTINGENT UPON ACTION BY THE HOUSE OF DELEGATES IN THE NEXT REGULAR SESSION IN 1971 ON CONSTITUTIONAL AMENDMENTS WHICH ARE GERMANE TO THE PROPOSED CHANGES IN THIS AMENDMENT.

Amendment to By-Laws No. 5-70

Amend Chapter II, Section 3 of the By-Laws of the Tennessee Medical Association to read:

SECTION 3: "If for any valid reason an Annual Meeting cannot be held on the date as named, the President, the three Vice-Presidents, the **Secretary-Treasurer**, and the Board of Trustees may fix another date provided the Secretaries of component Societies are notified as far in advance of the changed date as possible by the Executive Director of the Association and, if time permits, each Member shall be notified by a personal communication mailed to his address."

Section 3 at present: "If for any valid

reason an Annual Meeting cannot be held on the date as named, the President, the three Vice-Presidents, the **Secretary**, and the Board of Trustees may fix another date provided the Secretaries of component Societies are notified as far in advance of the changed date as possible by the Executive Director of the Association, and, if time permits, each Member shall be notified by a personal communication mailed to his address."

This proposed change in the By-Laws is also made necessary by proposed changes in the Constitution and the Reference Committee recommended adoption of Amendment No. 5-70 to the By-Laws, subject to the adoption of the Constitutional Amendment.

ACTION ON BY-LAW AMENDMENT NO. 5-70 IS CONTINGENT UPON ACTION BY THE HOUSE OF DELEGATES IN THE NEXT REGULAR SESSION IN 1971 ON CONSTITUTIONAL AMENDMENTS WHICH ARE GERMANE TO THE PROPOSED CHANGES IN THIS AMENDMENT.

Amendment to By-Laws No. 6-70

Amend Chapter VI, Section 3 of the By-Laws of the Tennessee Medical Association to read:

SECTION 3: "The **Secretary-Treasurer** shall give bond for the trust reposed in him, for such amount as the remaining members of the Board of Trustees may name, said bond to be made by a regular bonding company, and paid for by the Association. He shall demand and receive all funds due the Association, together with bequests and donations. All funds shall be deposited in a State or National Bank. He shall pay money out of the treasury on bills certified to by him or the Executive Director of the Association only; he shall subject his accounts to such examination as the House of Delegates may order; he shall annually render an account of his acts and of the state of the funds in his hands."

Section 3 at present: "The **Treasurer** shall give bond for the trust reposed in him, for such amount as the remaining members of the Board of Trustees may name, said bond to be made by a regular bonding company, and paid for by the Association. He shall demand and receive all funds due the Association, together with bequests and donations. All funds shall be deposited in a State or National Bank. He shall pay money out of the treasury on bills certified to by him or the Executive Director of the Association only; he shall subject his accounts to such examination as the

House of Delegates may order; he shall annually render an account of his acts and of the state of the funds in his hands."

The proposed changes in this Amendment are made necessary by proposed changes in the Constitution and the Reference Committee recommended adoption of Amendment No. 6-70 to the By-Laws, subject to the adoption of the Constitutional Amendments.

ACTION ON BY-LAW AMENDMENT NO. 6-70 IS CONTINGENT UPON ACTION BY THE HOUSE OF DELEGATES IN THE NEXT REGULAR SESSION IN 1971 ON CONSTITUTIONAL AMENDMENTS WHICH ARE GERMANE TO THE PROPOSED CHANGES IN THIS AMENDMENT.

Amendment to By-Laws No. 7-70

Amend Chapter XII, Section 2 and Section 11 of the By-Laws of the Tennessee Medical Association to read:

SECTION 2: "Charters shall be issued only upon approval of the House of Delegates, and shall be signed by the President and the **Secretary-Treasurer** of this Association. The House of Delegates shall have authority to revoke the Charter of any component Society, whose actions are in conflict with the letter or spirit of this Constitution and By-Laws, or the code of ethics of the American Medical Association upon recommendation of the **Judicial Council**."

SECTION 11: "At some meetings in advance of the Annual Meeting of this Association, each component Society shall elect a Delegate or Delegates to represent it in the House of Delegates of this Association, in the proportion of one Delegate and one Alternate to each fifty members or fraction thereof; and the Secretary of the Society shall send a list of such Delegates to the **Secretary-Treasurer** of this Association on or before January 1 preceding the Annual Meeting."

Section 2 at present: "Charters shall be issued upon approval of the House of Delegates, and shall be signed by the President and **Secretary** of this Association. The House of Delegates shall have authority to revoke the Charter of any component Society, whose actions are in conflict with the letter or spirit of this Constitution and By-Laws, or the code of ethics of the American Medical Association upon recommendation of the Council."

Section 11 at present: "At some meetings in advance of the Annual Meeting of this Association, each component Society shall elect a Delegate or Delegates to represent it in the House of Delegates of this Association, in the proportion of one Delegate and one Alternate

to each fifty members or fraction thereof; and the Secretary of the Society shall send a list of such Delegates to the Secretary of this Association on or before January 1 preceding the Annual Meeting."

This proposed Amendment to the By-Laws is made necessary by the proposed changes in the Constitution and the Reference Committee recommended adoption of Amendment No. 7-70 to the By-Laws, subject to the adoption of the Constitutional Amendments.

ACTION ON BY-LAW AMENDMENT NO. 7-70 IS CONTINGENT UPON ACTION BY THE HOUSE OF DELEGATES IN THE NEXT REGULAR SESSION IN 1971 ON CONSTITUTIONAL AMENDMENTS

RESOLUTION NO. 1-70

Commendation of

R. H. Hutcheson, M.D.

By: BOARD OF TRUSTEES

Whereas, Robert H. Hutcheson, M.D., provided the leadership and guidance necessary to make the Department of Public Health of the State of Tennessee one of the most outstanding in the nation; and

Whereas, because of his consuming desire to better serve the State of Tennessee, he has thereby received recognition from the Tennessee Medical Association as the Outstanding Physician of the Year, and

Whereas, his capable leadership covering a period of twenty-six years as Commissioner of Public Health in Tennessee did establish him as one of the outstanding Public Health Commissioners in the United States, and

Whereas, his untiring efforts in the development of the Public Health, health facilities and health services has been an inspiration to all of us; now therefore be it

RESOLVED, that Robert H. Hutcheson, M.D., through this resolution, be given the sincere appreciation that he so rightfully deserves and be honored for his long service and loyal dedication while serving as the Commissioner of Public Health of the State of Tennessee until his retirement on June 30, 1969; and be it further

RESOLVED, that the House of Delegates of the Tennessee Medical Association, present to Robert H. Hutcheson, M.D., this Resolution dated April 8, 1970, in appreciation for his distinguished services, and to wish him health and happiness in his retirement.

WHICH ARE GERMANE TO THE PROPOSED CHANGES IN THIS AMENDMENT.

RESOLUTIONS

The Reference Committees have the option of recommending a resolution for adoption or rejection, for adoption as amended or substituted, for referral, or for no action. The resolutions shown are in the form in which the House of Delegates adopted, referred or rejected them.

The Speaker recommended that the regular procedure of referral to Committee and subsequent action by the House not be followed in this instance and that the Resolution be adopted by unanimous consent.

The Resolution was unanimously approved by the House of Delegates and Dr. DeSaussure, Speaker of the House, presented the Resolution (which had been previously prepared in scroll form) to Dr. Hutcheson. Dr. Hutcheson accepted the commendation with a standing ovation by his colleagues and members of the House of Delegates.

RESOLUTION NO. 2-70

Peer Review Committee

By: BOARD OF TRUSTEES

Whereas, a mechanism for judicious and expeditious handling of problems concerning medical services is an absolute necessity for the protection of patients and physicians in these times of change and health care financing, and

Whereas, the physician must be assured that any disputed points are reviewed by other physicians, and

Whereas, the patient must be protected from the invasion of his rights by the insistence of government agencies or insurance companies that their financial interests permit intrusion into medical management, and

Whereas, the occasional unethical action must be quickly identified and corrected; now therefore be it

RESOLVED, that the Board of Trustees of the Tennessee Medical Association recommends the following committee structure and method of procedure:

(a) That the county utilization committee be replaced by a Peer Review Committee in each component medical society. This Committee would act as an appeal body from the decisions of hospital utilization committees and as a primary investigating board for

questions of over-utilization, over-charging or over-servicing outside of hospitals.

(b) Since over-utilization, over-servicing, or over-charging are sometimes questions of medical ethics, the District Councilor of the Tennessee Medical Association should be ex-officio a member of each local Peer Review Committee, so that he can become aware of the problems at their inception, and can follow the course of any dispute to a reasonable and rapid conclusion.

(c) The Tennessee Medical Association's State Utilization Committee and the Claims Review Committee, would be replaced by a State Peer Review Committee which would act on appeals from the local committees, and as a primary investigating body in areas without local peer review.

Reference Committee (B) recommended adoption of Resolution No. 2-70.

ACTION: ADOPTED

RESOLUTION NO. 3-70

Blue Shield Health Insurance Plans

By: BOARD OF TRUSTEES

Whereas, Blue Shield Health Insurance Plans are nationally recognized as being approved by physicians, and

Whereas, this approval is required in the Constitution of the National Association of Blue Shield Plans, and

Whereas, any successful Blue Shield Health Insurance Plan would of necessity do business in more than one county of the State of Tennessee; now therefore be it

RESOLVED, that the Tennessee Medical Association be designated as the approving body for Blue Shield Plans operating within Tennessee; and be it also

RESOLVED, that local component medical societies be directed not to continue to serve as approving bodies for Blue Shield Plans in this State.

Reference Committee (C) recommended adoption of Resolution No. 3-70 as presented.

ACTION: ADOPTED

RESOLUTION NO. 4-70

Comprehensive Health Planning in Rural Communities

By: RURAL HEALTH COMMITTEE

Whereas, scarcity of health resources and facilities in many rural communities leaves some sparsely populated rural areas without immediate access to health care services; and

Whereas, physicians have long recognized the need for community health planning to prevent fragmentation of services, needless duplication

of services, waste of money, and inefficient utilization of the total health team; and

Whereas, there is urgent need among small rural communities to plan and coordinate their resources with adjoining communities to comprise a population base large enough to support a full range of efficient and high quality health services and facilities; therefore be it

RESOLVED, that the Tennessee Medical Association urge local medical societies to give support and enlist physician participation in local comprehensive health planning programs, particularly involving rural communities; and be it further

RESOLVED, that support and encouragement be given to have rural leadership represented on community, area, and state health planning councils to insure sound planning for rural community health programs including health care delivery systems.

Reference Committee (D) recommended adoption of Resolution No. 4-70 with comment: "that every medical society take steps to insure that it has a representative on the local Comprehensive Health Planning Council."

ACTION: ADOPTED

RESOLUTION NO. 5-70

Physician's Assistant Program

By: LIAISON COMMITTEE TO MEDICAL SCHOOLS

Whereas, the practicing physicians of Tennessee are finding it difficult to meet the increase in the demand for medical care by the citizens of this State, and

Whereas, the medical schools have been unable to increase their enrollment to offset the increasing demand for physicians, and

Whereas, physician's assistants may be helpful in extending the effectiveness of physicians in providing medical care; now therefore be it

RESOLVED, that the Tennessee Medical Association recognizes the desirability for Physician's Assistant programs and encourages institutions of higher education to develop these programs.

Reference Committee (C) recommended adoption of Resolution No. 5-70 as presented.

ACTION: ADOPTED

RESOLUTION NO. 6-70

Opposition to Governmental Agencies' Efforts To Take Over Confidential Records or Data Pertaining to Patients and Physicians

By: BOARD OF TRUSTEES

(Explanation—In the 1969 Session of the House of Delegates, the Board of Trustees

introduced Resolution No. 6-69, entitled, "Opposition to Health, Education and Welfare Efforts to Take Over Confidential Records or Data Pertaining to Tennessee Physicians." The Reference Committee of the House recommended a Substitute Resolution No. 6-69. The House of Delegates approved a motion that Substitute Resolution No. 6-69 be referred to the Board of Trustees for further consideration and a report to the House of Delegates in 1970. The Board acted to concur with Substitute Resolution 6-69 with amendments and introduced Resolution No. 6-70 as follows:)

Whereas, by tradition, custom and law, the confidences of patients to physicians has been a sacred trust, and inviolate confidence and not available for any purpose public, private, or personal, and

Whereas, governmental agencies have attempted in some instances to obtain confidential information concerning patients and physicians from sources including fiscal intermediaries, and

Whereas, the Tennessee Medical Association is opposed to such steps where records or data concerning patients or physicians are made available without the permission of the patient or physician; now therefore be it

RESOLVED, that the Tennessee Medical Association, through action of the House of Delegates, goes on record opposing any effort by all governmental agencies to obtain without legal authority, confidential records or data pertaining to patients and physicians without their permission; and be it further

RESOLVED, that fiscal intermediaries and insurance companies in Tennessee be notified of this action and further that the fiscal intermediaries be urged to resist to the fullest extent any effort to obtain such data.

Reference Committee (B) recommended adoption of Resolution 6-70.

ACTION: ADOPTED

RESOLUTION NO. 7-70

Establishment of State Eugenics Board

By: ROANE-ANDERSON COUNTY
MEDICAL SOCIETY

Whereas, in the State of Tennessee, the Statutes dealing with sexual sterilization, i.e., vasectomy and salpingectomy are inadequate or nonexistent, and

Whereas, the legal procedures necessary for the sexual sterilization of minors with mental deficiency or recurring mental illness are impractical and costly for the parents or guardians, and

Whereas, procedures for persons referred by the Welfare or Public Health Departments for

sexual sterilizations are similarly impractical, and

Whereas, the legal procedure necessary for sexual sterilization of adult persons requesting it is not clearly defined; now therefore be it

RESOLVED, by the House of Delegates of the Tennessee Medical Association that the following recommendations be made to the next session of the Tennessee General Assembly:

- (a) That appropriate legislation be enacted dealing with sexual sterilization upon adults requesting it.
- (b) That legislation be enacted to establish a State Eugenics Board regulating sexual sterilization of individuals with mental deficiency or recurring mental illness regardless of age.

Reference Committee (B) recommended adoption of Resolution No. 7-70 as presented.

ACTION: THE HOUSE OF DELEGATES DID NOT ACCEPT THE RECOMMENDATION OF THE REFERENCE COMMITTEE AND APPROVED A MOTION FROM THE FLOOR TO REFER RESOLUTION NO. 7-70 TO THE BOARD OF TRUSTEES.

RESOLUTION NO. 8-70

**Recommended Changes in
Tennessee Medicaid Program**

By: BOARD OF TRUSTEES

Whereas, medical care of all persons in Tennessee is a matter of vital concern to the physicians of Tennessee, and those persons who are unable to pay for medical care are the responsibility of all citizens, and

Whereas, medical cost for these persons should be furnished through a program of general taxation and since those patients who pay their medical cost are currently paying the costs of hospital care for the indigent, and

Whereas, the practicing physicians of Tennessee have traditionally and historically provided good medical care to all persons without regard to their ability to pay for such care, and

Whereas, the great cost for care of the indigent lies in payment for hospital and nursing home services and drugs, and the cost of physicians' fees is estimated to constitute less than 20% of all medical cost, and

Whereas, the Medicaid program, in its present form, has been proven unworkable both in our state and across the United States, and

Whereas, there exist an urgent and dire need for physicians in economically deprived counties in our state and since some incentive is needed to encourage physicians to practice in these counties and since these counties contain large numbers of indigent people; now therefore be it

RESOLVED, that the Tennessee Medical Association

recommend to the administering agencies of the Tennessee Medicaid Program: (a) That Medicaid pay usual and customary hospital, nursing home and drug fees in full, provided such fees are realistic and based on sound actuarial studies. These fees should include no component for hospital based physicians (Radiological, Pathological, or Anesthetic, etc.).

(b) That Medicaid pay no physicians' fees whatsoever except as defined in (c) below.

(c) That Medicaid pay usual and customary fees to those physicians who reside in, and practice in, economically deprived areas where there is a small physician/patient ratio; and be it further

RESOLVED, that all physicians in the State of Tennessee be requested not to accept Medicaid funds for services to Medicaid patients, as presently defined under the law, and that each physician accept his share of the indigent patients in keeping with medicine's historical precedents.

Reference Committee (B) recommended that Resolution No. 8-70 be defeated for the following reasons: (1) Underprivileged areas not adequately defined. (2) Under present law eligibility standards are not clearly defined. (3) It is presumptuous that all physicians would refuse Medicaid patients.

A Minority Report of Reference Committee (B) presented by a member of the Committee endorsed Resolution No. 8-70 and presented his reasons for endorsement.

Several amendments and motions were presented by members of the House of Delegates, however, a motion to Table the resolution prevailed by a vote of 46 to 33.

ACTION: RESOLUTION NO. 8-70 WAS TABLED

RESOLUTION NO. 9-70

Medicaid Payments

By: BRADLEY COUNTY MEDICAL SOCIETY

(Amendments recommended by the Reference Committee and approved by the House of Delegates, added the words, "and Medicare" following the word, "Medicaid" in the first Whereas; substituted the word, "payments" for the word, "they," and the words, "more Equitable" for the word "equal" in the Resolve. The Amendments are shown in black-faced type.)

Whereas, the present permissible payments under the Tennessee Medicaid and Medicare program are considerably greater in the Metropolitan areas of the state than in the rural areas of the state, and

Whereas, there is a marked variation in distribution of physicians throughout the state with the higher concentration being in the Metropolitan areas, and

Whereas, it has been the stated policy of the Tennessee Medical Association to encourage the establishment of more physicians in the rural areas, and

Whereas, there apparently were many factors affecting medical fees which were not considered when the above variation was decided upon; now therefore be it

RESOLVED, that the House of Delegates of the Tennessee Medical Association requests the Tennessee Department of Health to re-examine this question and as soon as possible change the allowable maximum fee so that **payments** are **more equitable** throughout the state.

Reference Committee (B) recommended adoption of Resolution No. 9-70 as amended.

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 10-70

Report of the Joint Commission on Mental Health of Children

By: COMMITTEE ON MENTAL HEALTH

Whereas, the mental health of children is an area that has been sorely neglected by physicians and agencies at local, state and national levels, and

Whereas, this problem has since 1965 been studied by the Joint Commission on Mental Health of Children, which is an organization sponsored by the American Psychiatric Association, the American Medical Association, the American Psychological Association and other national organizations having objectives related to this field and later joined by a number of other organizations. This Commission has had as its membership distinguished professional workers in every aspect of child care; and

Whereas, this Commission has within the past year released a report which has been studied by the American Medical Association Council on Mental Health and by many other organizations with particular interest in the mental health of children; and

Whereas, the report of the Commission has emphasized the first three years of life as the most important point of attack for the prevention of major mental illness and for the development of personalities that will be able to resist the stresses of everyday living and has formulated a unique program for the implementation of such ambitious recommendations; and

Whereas, there is already being prepared a law sponsored by a distinguished Senator that will provide funds for the implementation of the recommendations of this Commission; and

Whereas, it would seem appropriate for the American Medical Association through its Board of Trustees to recognize the importance of this

document and to lend its support to the recommendations stated in the body of the report; now therefore be it

RESOLVED, that the Tennessee Medical Association accept in principle the recommendations of the Commission on Mental Health of Children, and be it further

RESOLVED, that the House of Delegates of the Tennessee Medical Association instruct the Tennessee Delegation to the American Medical Association to introduce a resolution in the House of Delegates of the American Medical Association embodying the import of this resolution.

Reference Committee (C) recommended adoption of Resolution No. 10-70 as presented.

ACTION: ADOPTED

RESOLUTION NO. 11-70

Guidelines for New Health Career Programs

By: NASHVILLE ACADEMY OF MEDICINE

Whereas, the development of new health occupations has been extensively studied by the American Medical Association Board of Trustees, and

Whereas, the Council on Health Manpower in Report S (C-69) has prepared guidelines which specify desirable steps to be taken and questions to be resolved by any group or institution attempting to develop a new health career, and

Whereas, the Council on Health Manpower, through the Committee on Emerging Health Manpower, has outlined procedures whereby new health career educational programs may be evaluated, and

Whereas, independent experimentation in the development of new health careers has led to unexpected problems in the past; now therefore be it

RESOLVED, that the Tennessee Medical Association encourages institutions of higher education which may intend to develop new health career programs to follow the guidelines referred to in Board of Trustees Report S (C-69) of the American Medical Association, and obtain the evaluation of the Council on Health Manpower referred to in Report S (C-69), prior to the activation of the new program.

Reference Committee (C) recommended adoption of Resolution No. 11-70 as presented.

ACTION: ADOPTED

RESOLUTION NO. 12-70

Expression of Appreciation to Dr. Ed Boling

By: SHELBY COUNTY DELEGATION

Whereas, Doctor Ed Boling will assume the Presidency of the University of Tennessee in the near future, and

Whereas, Dr. Boling has devoted much time and effort in consideration of the problems facing medical education in general, and the medical units of the University in particular, and

Whereas, Dr. Boling has consistently sought consultation and advice from members of this Association in his decisions affecting the medical units; now therefore be it

RESOLVED, that the Tennessee Medical Association expresses its appreciation to Doctor Boling for his consideration of the physicians in these matters and pledges its support in his efforts to improve the quality of medical education in the University.

Reference Committee (C) recommended adoption of Resolution No. 12-70 as presented.

ACTION: ADOPTED

RESOLUTION NO. 13-70

Regional Medical Programs

By: BOARD OF TRUSTEES

(Amendments recommended by the Reference Committee and approved by the House of Delegates, added the words, "and the "Memphis Regional Medical Program", following the words, "Mid-South Regional Medical Program"; and substituting the word, "with" for the words, "and the" in the second Resolve. Amendments are shown in black-faced type.)

Whereas, the supply of physicians to provide the necessary medical care for the residents of Tennessee is less than the proper number to supply the need, and

Whereas, the Tennessee Medical Association has for a number of years attempted to recruit physicians, particularly for the rural areas of the State, and

Whereas, the Tennessee Mid-South Regional Medical Program, under the leadership of Dr. Paul Teschan, is developing plans to improve the probability of recruiting physicians for these areas; now therefore be it

RESOLVED, that the Tennessee Medical Association encourages the Tennessee Mid-South Regional Medical Program to proceed along this outlined plan to assist rural physicians in their practice and to recruit other physicians for service in these areas, and be it further

RESOLVED, that continuous close liaison be maintained between the Tennessee Mid-South Regional Medical Program and the Memphis Regional Medical Program with appropriate Committees of the Tennessee Medical Association as these ideas develop.

Reference Committee (B) recommended adoption of Resolution No. 13-70 as amended.

ACTION: ADOPTED AS AMENDED

RESOLUTION NO. 14-70

Physician Representation on Board of Trustees of University of Tennessee

By: SHELBY COUNTY DELEGATION

Whereas, the medical units of the University of Tennessee supplies the majority of physicians for the State of Tennessee, and

Whereas, there is no physician on the Board of the University of Tennessee to represent the views of the profession of medicine to that Board; now therefore be it

RESOLVED, that the Tennessee Medical Association respectfully requests consideration be given to the appointment to the Board of Trustees of the University of Tennessee a physician from the vicinity of the medical units as soon as the opportunity arises.

Reference Committee (B) recommended adoption of Resolution No. 14-70.

ACTION: ADOPTED

RESOLUTION NO. 15-70

Report of the Committee on Planning and Development (Himler Report)

By: REFERENCE COMMITTEE A

Whereas, the AMA House of Delegates has appointed an Ad Hoc Committee on Long-Range Planning and Development, and

Whereas, this committee is charged with considering the Report of the Committee on Planning and Development (Himler Report) and the Minority Report (Budd Report), and

Whereas, the AMA House of Delegates has requested resolutions from the component and constituent state associations or societies relative to the Report of the Committee on Planning and Development (Himler Report), and

Whereas, the TMA House of Delegates recognizes that many far-reaching controversial issues are included in the report; now therefore be it

RESOLVED, that the TMA recommends to the AMA House of Delegates that the Report of the Committee on Planning and Development (Himler Report) and the Minority Report (Budd Report) be retained for information only, and be it also

RESOLVED, that the TMA Delegation to the AMA House of Delegates submit such a resolution at the Annual Convention in 1970.

A motion was made by the Chairman of Reference Committee (A) that Resolution No. 15-70 be adopted.

REPORT OF OFFICERS

Report of the President

FRANCIS H. COLE, M.D.

"As I rise to give this report to the House of

Delegates, I remind myself of the position of the man who became the tenth husband of a movie star and on his wedding night he said, I know what is expected of me but I'm not sure how to make it interesting.

"I will report to you in brief some of the activities in which we have engaged during the past year. It has been a real honor to serve this profession and this Association, and my colleagues in this capacity.

"Details of the work of the Association will be unfolded to you in other reports as the meeting progresses. I will take the opportunity to touch a few highlights.

"In a very real sense I believe our accomplishments and our shortcomings combined to threaten our survival as an independent group of free enterprise practitioners. Our accomplishments and success in the technical and scientific areas creates an insatiable demand for medical services, and this multiplies the difficulties and delays in applying these benefits to all segments of our population. Although this is not necessarily directly attributable to medicine as a profession, yet we must assume a portion of the responsibility.

"Most of us do a good job in the private practice of medicine and the prime duty of taking care of our own patients. We all share a larger responsibility. After the white coat is off, the office is closed, and the operation is over, we are no longer in the private practice of medicine but we then become medically knowledgeable members of the community, and we are in the public service of medicine, and we must be both responsible for and responsive to the public interests in the largest sense.

"In addition to efforts that are purely local through the societies, schools and organizations where we live, I submit that it is through the vehicle of this State medical association that we might become maximally effective in this public practice of medicine. If we are to be successful in this area, our Association must involve and must represent the unified profession. It must represent all specialties and all geographic areas. We must also resist fragmentation. We must speak for academicians as well as practitioners, for rural and family doctors, as well as for limited specialties in the city, and for the solo doctor as well as the groups.

"We should strive hard to prevent the hardening of the categories to impede our progress. We must not overlook new and different approaches to the delivery of health care.

"Manpower is needed in practically every category of medical care. Recruitment of men, young men and women to enter the field of health care is an important responsibility which we must constantly exercise.

"The Student Loan Fund of the TMA represents a tangible example of our commitment to medical education, as does our concern for medical colleges, and for the financial support

we give individually and through the American Medical Association Education and Research Foundation.

"We must continue to seek ways to influence medical education to the end that more physicians can be trained. Expansion of teaching facilities, decentralization of residency training programs, encouragement of family practitioners are all-important in supplying physicians in areas where they are needed.

"Meanwhile, we as physicians must continually update ourselves with post-graduate education programs. We must continue to strengthen our own continuing education to improve our efficiency and knowledge, and to combat a growing swell from Washington for Federal re-licensure regulated by non-professionals. We must expand our public information programs to help people recognize the realities of demand versus need and expectation of services.

"This brings us to one of the most severe problems that we confront, namely, the difficulty of communications and the difficulty of conveying our complex problems to other people.

"All the Officers and Board members during the past year have participated forcefully in a program of visiting medical societies throughout the State. The staff of the organization has also taken part in these activities. We need to continually inform our members so that they can convey answers to their patients, and quote figures to the State and Nation on questions that arise concerning medical affairs.

"We are continuing in a complex period of changing relations between physicians, their patients, the public, and the Government. As third party payment plans increase, the involvement of Government in our affairs will increase. In 1969, the greatest number of health bills ever confronted by our Association, came up in the first half of the 86th General Assembly. More than fifty such bills involved constant observation and close contact with our representatives in the Legislature.

"There were issues concerning chiropractic, podiatry, licensing of foreign physicians, expanding the Public Health Council, and numerous other measures which required our close attention.

"The Bill to elevate chiropractic and podiatry to equality with medicine in the health insurance field passed the House of Representatives by an overwhelming majority, and was kept in the Senate Commerce Committee by a margin of one vote.

"Many physicians exerted a great deal of activity in this behalf and to these people all the citizens of Tennessee owe a debt of gratitude because this Bill was not in any way in the public interest.

"During the time between the two sessions of the 86th General Assembly, a concentrated effort was made to improve our relations with members of the Assembly and from one end of

the State to the other, meetings were held between Tennessee Medical Association staff members, representative physicians, and political figures who represent us in the General Assembly.

"I believe these efforts had some effect because the last session of the General Assembly was relatively quiet and the Chiropractic Bill died in the Committee without any further effort to have it passed.

"Now, Medicaid, as to this Title XIX, a great deal of furor was created in the halls of the Legislature and certain Amendments to the Bill which made physician cooperation highly unlikely were passed by the General Assembly in spite of testimony presented by your President, President-Elect and Chairman of our Legislative Committee. A great deal of activity ensued on the state, local and national levels with leaders of both political parties so that a compromise was finally reached in the final hours of the session toward making this issue a little more palatable to physicians, and a little more helpful for the indigent sick of Tennessee.

"Political activity by physicians is indispensable if we are to protect the public health. Most of you would prefer to be left only to the practice of your profession, but this is impossible. We cannot hope for continued existence without continued participation in legislative affairs. A small number of men produced a great amount of action and many hours of work on behalf of the medical profession and the public health during the last two years. More physicians becoming more knowledgeable and spending more time will be required as government at all levels increases its activities in the field of medicine.

"Since the Medicaid Law was implemented, the Board of Trustees and Officers have spent uncounted hours on problems arising out of administration of this Law. In some areas we were able to obtain changes that greatly reduced the burden upon physicians. In other areas we did not succeed. The leadership of this Association and our appointed representatives on several advisory committees consistently fought for the most successful program possible for doctors for the payment of usual and customary charges, and for most satisfactory programs that could be obtained for patients.

"The size of this undertaking, the newness of the concept, misunderstandings in communications and the traditional independence of physicians combined to make for many misgivings. At no time could your President or anyone else commit individual physicians to accept anything. Each physician must decide for himself how he will react to Medicaid as he traditionally does in all situations. Each physician must also remember his responsibility to the indigent and to the emergency ill.

"The Officers and appropriate committees continued to press for centralization of the paper work, and for realistic reimbursement for physicians providing services for eligible recipients

under Medicaid. The State of Tennessee upon undertaking the responsibility for the health care of these eligible indigent persons, must provide enough money to pay for the services rendered by hospitals, nursing homes, pharmacies, laboratories, and physicians. Despite certain philosophic objections among individual citizens, there is no discernible political indication that Medicaid will be abolished. It may be absorbed into a larger system of Federal sponsored health insurance, but return to the time-honored, mass production clinic medicine for poor people has no responsible advocates in public life today.

"The subsidy of health care for low income people is the only direction in which this program can go. No other significant funds are available to devote to the health care of the poor people, and the haphazard of non-official charity is not sufficient for the task.

"Pressures on physicians and hospitals to take part in the programs will inevitably increase. The charitable donation by a physician of his time, skill and energy to care of poor people will always be important. Hospital care becomes more and more difficult to obtain as costs continue to rise. The Officers and committees of the Tennessee Medical Association, pursuant to directives from the House of Delegates, have devoted themselves toward equitable and efficient implementation of this program with dignity for the indigent ill, and responsible independence for the physician as indispensable features of any health care plan that can be expected to work. Progress has been made, liaison with the State Administration is constant, and I would urgently recommend that this same course be pursued in the future.

"Another important area which has greatly concerned us is our utilization review mechanism. We must operate successfully the mechanism of utilization and peer review. There are a few among our number who entertain a perverted view of the value of their services, who exploit their patients or over-utilize programs. They should get our full attention. Our review committees must continue to function and to improve their efficiency.

"Peer review is the only bastion of defense against the unwarranted accusations of the ill-informed and vicious who act to discredit our profession as a means to regiment us, and offers support to our conscientious membership.

"In the consideration of patient care, any over-utilization must be looked at from the ethical viewpoint and not on the basis of any guidelines. Over-utilizing or over-treating is unethical. We need to pay particular attention to the duties of our Judicial Council, and its responsibilities in the field of ethics. In this session of the House, you will have the opportunity to study and act upon Amendments to our Constitution and By-Laws. One of the principal ones deals with redefinition and strengthening of the Council of this Association in order to make it

more effective in dealing with matters of ethics in our State.

"Utilization committees must move out of hospitals, must have dedicated members to defend their colleagues against capricious allegations, but must at the same time protect our profession and our patients from a minority of physicians who by their unethical conduct bring discredit to all of us.

"Besides the advantages of professional membership in the Tennessee Medical Association, there are real financial savings through group insurance plans available to our members.

"Dr. Satterfield, Chairman of our Group Insurance Committee, informs me that savings on professional, liability, group life, and accident insurance amounts to more than twice the amount of the Tennessee medical dues.

"In addition, the Association Retirement Plan offers a no load growth mutual fund, and a balanced retirement plan with assets of over \$11 million, and estate protection of \$40 million for its 2,600 participants. I commend these facts for your use when complaints are made about the cost of organized medicine.

"This has been probably the most trying year for the Tennessee Medical Association and for the profession in general within recent memory. We have been greatly helped by the political activity of individual doctors, and we all owe our thanks to Dr. Peeples, Dr. Berryhill and Dr. Nolan, who gained election to the Tennessee General Assembly.

"It has been a long year. We've had a good staff and without the dedicated help of this staff, Jack Ballentine, Hadley Williams, Hank Holderfield and Mike Windham, it would have been totally impossible.

"In addition, we have had constant liaison between the Officers of the Tennessee Medical Association, and I believe we have continuity of policy which would not have been possible without the extensive and intensive use of the long distance telephone.

"In closing the President, of necessity, attended many meetings not only in this State but in different areas of the country. I tried to represent the Association in the various meetings to which I was supposed to go.

"I want to express my sincere appreciation to the many members who had helped during the year, particularly the local members from Memphis and Shelby County on whom I've leaned for advice and guidance. I am extremely grateful to all of you for having entrusted the presidency of this organization to me. On the whole this has been an interesting, long, rewarding year. My best efforts will continue in the service of this Association."

THE REFERENCE COMMITTEE—A, commented on the report: "The President's report summarized the year's work and activities of a dedicated physician. This year there were expended services for TMA requiring the talented

leadership of our President. He states, 'Our Association must have greater support and we must be willing to give freely of our leadership, time, our talents and our best thinking', to cope with the tasks that lie ahead."

THE HOUSE accepted the report.

Report of the Secretary

C. GORDON PEERMAN, M.D.

The Secretary of the Tennessee Medical Association in the past year has had the pleasure of close association with the other Officers of the TMA, its Executive Director and headquarters staff. Most of the duties of the Secretary are ably administered by the Executive Director and the headquarters staff. The Secretary wishes to commend the Executive Director and headquarters staff on the diligent and efficient manner in which the business and deliberations of the TMA have been administered in the past year.

Most of the activities of the Secretary involved participation on the Board of Trustees. It has been a pleasure for the Secretary to serve with the other Board members in the administration and policy decisions of the Board during the past year. A commendation for the diligence and sincerity of the Board in directing the course of the TMA through a rather difficult year is in order. The Secretary has also been available during the past year to provide liaison between the Tennessee Medical Association and other organizations.

THE REFERENCE COMMITTEE—A, commended the Secretary for the summary outline of the duties of his office.

THE HOUSE accepted the report.

Report of the Board of Trustees

JOHN H. SAFFOLD, M.D., Chairman

Dr. Saffold stated that he would abstract the Board's report, stressing the important activities of the Board during the past year. He stated that the Board had been called upon to intensify its activity in the interest of the Association's affairs during the past twelve months. It was pointed out that the Board functions through a committee system, thus saving time. The Board of Trustees is charged with the responsibility of serving as the Executive Board of the Association to determine the policy and details of management between sessions of the

House of Delegates. The Board controls the publication policy, editorial and financial management of the JOURNAL OF TMA. It is empowered and authorized to make all contracts and approves the expenditures of funds of the Association, dependent upon the availability of such funds. The Trustees are also vested with powers to invest the funds of the Association as are granted by law to general welfare corporations. The Board's responsibility also falls into the category of recommendations, studies and advice, concerning problems confronting the medical profession of the State, and rendering information to the House of Delegates. It also coordinates activities of the various committees in the respective divisions as set forth in the organizational structure, and it is responsible for the activities of the staff. It also recommends and establishes appropriate policies and programs of the Association to meet its objectives and goals.

The Chairman pointed out that all activities of the Board considered during the past year have been published in abstract form in the first available issue of the JOURNAL, following each meeting. Items of importance have been explained and emphasized on the President's Page, and the editorial pages of the JOURNAL.

Dr. Saffold stated that seven committees of the Board administer and study the Association's business, and coordinates the activities of these committees of the Board. These include an Executive Committee, Planning and Development Committee, Finance Committee, Building Committee, Committee on Malpractice, Committee on Publications, and other committees as required.

The Chairman of the Board also commented on the number of amendments and resolutions presented by the Board to the House for consideration. In all, these included three amendments to the Constitution and seven amendments to the By-Laws presented by the Board. The purpose of these amendments was to further streamline the procedures under which the Association conducts its work, in order to make its administrative processes more orderly.

The Chairman reported in abstracted form, the major activities at each of the

sessions of the Board during the year since the last annual report made to the House.

Important matters acted upon by the Board in these sessions were:

1. Approved jointly sponsoring with the Tennessee Hospital Association a conference on "providing emergency care".
2. Approved a total amount of \$14,000 to the Tennessee Medical Association's Student Education Fund for the purpose of additional loans to medical students.
3. Granted \$600.00 to the U. T. Chapter of The Student American Medical Association and the National Chapter of the Student American Medical Association.
4. The Board was instrumental to a considerable degree with the administrative and policy measures dealing with the Medicaid Program throughout its year of implementation.
5. Approved a contract for a new printer of the JOURNAL in order to save on production cost.
6. The Board recommended appointments to several Councils and Committees of AMA.
7. Approved a visitation program to the County Medical Societies by officers and members of the Board of Trustees.
8. Considered recommendations presented by the Planning and Development Committee, and directed that the necessary Amendments to the Constitution and By-Laws be prepared and presented for consideration at this meeting of the House of Delegates.
9. Directed the Building Committee to proceed with plans for the additional headquarters office space.
10. Considered the important matter relating to limited licensure for foreign physicians.
11. Developed a recommendation on establishing utilization review committees (later presented as peer review committees).
12. Endorsed the Mid-Cumberland Comprehensive Health Planning Council.
13. A special meeting of the Board was held on August 10, 1969, for the single purpose of discussing controversial issues of the Medicaid Program. The discussions covered participating forms for doctors and numerous issues dealing with participation

in the program by physicians. TMA representatives stressed the urgent necessity of strict utilization and control of the cost of Medicaid. The question of fees was one of the thorny problems involved, and the Board strongly recommended that physicians not participate in the program over an extended time at a reduced fee unless appropriate representatives of TMA could have access to the records, and knowledge of the amount of money available under the program and how it was being spent. A letter was sent to the membership informing them of the basic requirements to participate in the Medicaid Program.

14. Other important matters acted upon were:

—“The Tennessee Medical Association be designated as the appropriate body to endorse any Blue Shield plan in Tennessee which involves coverage in more than one county.”

—Heard a detailed report by Dr. Nesbitt on the status of Medicaid pointing out that the Tennessee Medical Association representatives could not accept the 50% reimbursement formula on the Medicaid Program.

—Approved operation of the First Aid Station at the Capitol during the Tennessee General Assembly.

—Studied a report of Emergency Medical Services, and referred the summary and recommendations to the Legislative Committee, stating that members of the Board should discuss the matter with physician members of the Governor's Advisory Committee on Emergency Medical Services.

—Adopted a budget for 1970.

—Finalized plans for an addition to the headquarters building and took action to seek a variance in the zoning restrictions on the present property.

—Approved in principal an education program on drug abuse through the Advisory Committee of the Woman's Auxiliary.

—Approved in principal the proposed legislation for Emergency Medical Services.

15. At the final meeting of the Board, a Nominating Committee for 1970 was appointed.

—Appointed the members of the Board of Directors of IMPACT.

—Selected the Tennessee physician to be the recipient of the Distinguished Service Award.

—Approved a resolution for presentation to the House of Delegates for an effective peer review mechanism in the county societies, and the State Association.

—Discussed in detail the AMA Long-Range Planning Report (Himmler Report) which has been forwarded to all members of the House of Dele-

gates and to the County Medical Society officers. —Approved a handbook of policies for TMA employees as presented by the Executive Director. —Considered and accepted a detailed report on the activities of the Committee on Continuing Medical Education, and appointed an Ad Hoc Committee of the Board on Malpractice.

In other business coming before the Board, it was pointed out that the Board gives particular attention to the fiscal affairs of the Association as well as the annual audit, all of which are given careful scrutiny.

The Trustees have experienced a year in which they have been called upon to review many developments and make many decisions which have bearing upon the health of the people of our State and the practice of medicine.

THE REFERENCE COMMITTEE—A, commented: "The report of the Board of Trustees indicates the functions through committee systems that are required of the policy making Board of TMA. This report summarizes the more important motions and reports brought up at the many Board meetings in the past year, and help to clarify the multiple problems in medicine as related to government and administrative action."

THE HOUSE accepted the report.

Report of the Treasurer

ROBERT L. CHALFANT, M.D.

Continuing inflation has affected our operation just as it has all business enterprise. Increased committee activity, travel, communications with the membership, and rising costs in general are reflected in our various items of expense for the year. Every effort is made to continue TMA's fiscal operations within the budget adopted by the Board of Trustees.

The report of the Treasurer covers the financial transactions of the Tennessee Medical Association for the calendar and fiscal year 1969. A complete audit of the Association's financial status was made at the close of 1969 by the accounting firm of CPAs.

The Treasurer pointed out that the fiscal affairs of TMA are conducted on the budget method, the budget being annually approved at the October meeting of the Board, and effective on the beginning of the following calendar year.

The year 1969 saw TMA operate within the budget and a reasonable reserve at the close of the fiscal year. The Trustees have

carefully planned the financing for expansion of the headquarters building and sufficient funds from reserve should provide the principal funding needed for the expansion.

The Board's continuing concern is the inflationary cycle in which we exist. Additional funds are required each year due to increased activities, stepped up programs, rising prices and inflation. It has been necessary to expend additional money in the general legislative program, particularly the Tennessee General Assembly.

TENNESSEE MEDICAL ASSOCIATION
Nashville, Tennessee

OPERATING STATEMENT

Year Ended December 31, 1969

(Consolidated Financial Statement—
January 1-December 31, 1969)

INCOME

	1969	1968
Exhibits and Annual Meeting	\$ 11,622.00	\$ 10,204.50
TMA Dues	168,080.00	165,852.50
Journal Advertising	33,156.08	38,697.97
Investment Income	16,289.09	10,487.83
Miscellaneous and Other Income	5,687.77	5,502.70
TOTAL	<u>\$234,834.93</u>	<u>\$230,745.50</u>

DISBURSEMENTS

	1969	1968
Administrative	\$ 24,813.71	\$ 11,059.27
AMA Delegates and Hospitality	* —	7,970.10
Annual Meeting—TMA	13,069.65	11,777.64
Attorney and Auditing	6,300.00	9,324.85
Board of Trustees—Committees—Council	** 4,604.70	4,361.16
Headquarters Building	4,737.27	5,163.48
IMPACT	3,000.00	4,000.00
Journal—TMA	49,224.22	42,992.41
Legislative Expense	12,189.61	7,662.01
Public Service	* —	1,213.93
Staff Salaries & Employee Insurance	79,597.26	71,631.11
Taxes	2,999.35	2,627.14
Staff Travel	6,032.34	6,564.87
Building Fund	5,000.00	5,000.00
State and County Officers Conference	—	1,032.49
Miscellaneous and Other Expenses	2,610.00	5,757.35
TOTAL	<u>\$214,178.11</u>	<u>\$198,137.81</u>

*Included in Administrative Expense

**Partly covered in Administrative Expense

TENNESSEE MEDICAL ASSOCIATION
BALANCE SHEET

December 31, 1969

	December 31 1969	1968
ASSETS		
Operating Fund—		
General Business	\$ 55,901.77	\$ 64,544.64
Reserve Fund: (Savings,		
Investments, Bonds)	265,385.01	249,960.60
Student Education Fund—		
Cash	9,154.26	17,607.43
(Notes Due)	59,600.00	36,785.00
Memorial Trust Fund	1,749.29	1,698.02
Building Fund	16,011.15	10,369.99
Property Fund—Fixed		
Assets (Land, Building,		
Equipment—Less		
Depreciation)	113,082.06	114,331.97
LIABILITIES		
Accounts Payable	\$ 228.32	\$ 228.32
Accrued Payroll Taxes	1,577.50	1,452.78

"The Board of Trustees welcomes the opportunity to present an accounting of its stewardship of the financial affairs of the Association. The Trustees are apprised quarterly of the income and expense status of our fiscal transactions, and monthly summaries of income and expenditures are carefully examined by your Treasurer."

THE REFERENCE COMMITTEE—A, stated that, "The Treasurer's financial statement is concise and gives a thorough report on the financial status of our Association. A breakdown of income and expenditures for 1969 is included on the last page of this report."

THE HOUSE accepted the report.

Report of the Council

B. G. MITCHELL, M.D., Chairman

The report pointed out that the entire area of the corporate practice of medicine was given special consideration by the Council during the past year, and it was generally conceded that the involved specialty societies would continue as an active stimulus for its members to comply with the request of the House of Delegates of the Tennessee Medical Association.

The Council was greatly concerned with the inadequate reporting of conditions throughout the State, as the Secretaries of most of the County Medical Societies have failed to supply information to their Councilor. Of the reports received, there

was only one case of suspension, and in one case a County Society recommended the cancellation of a narcotic stamp of one of its members. The report stated that the apparent high standards of ethics and conduct by physicians of the State was not sufficient to keep down many grievances and utilization matters. The report stated that it would seem incredulous that such attacks should occur without proper consultation with an association which represents approximately 95% of the practicing physicians of the State.

The report stated that certain specialty physicians are gradually separating their professional services from the technical operation of individual hospitals across the State. Methods of billing remain a rather consistent problem and one which is still unresolved. The Council has restated its position of the necessity of separate billing, and it is in this direction that we must proceed. It was pointed out that within the next year, it is hoped that the entire problem will be completely resolved. The Council pointed out that there has been a marked increase in the activities of privately owned hospitals in the State, and these institutions could undoubtedly pose a threat to restrictions on physicians in the corporate practice of medicine.

The report further stated that a review of last year's report revealed a mounting concern on the part of the Council of over-utilization of medical services by a limited number of physicians in the State. Over-utilization is a violation of medical ethics, and as such comes within the sphere of control of the Council. It was also pointed out that the attempt made by the President of the Association to mobilize the Council at the local level, and to place them in a position of early detection of over-utilization practices.

The report stated that perhaps the most serious problem facing the Association is that of Drug Abuse. Drug Abuse is one of the many manifestations of moral decadence of the society and unfortunately the Council has encountered entirely too many instances of physician participation in these abuses. Illegal traffic in drugs perpetrated and participated in by a physician surely must be the most heinous violation of medi-

cal ethics in our profession, and those who would knowingly participate not only should be expelled from the Association but active proceedings should be instituted to revoke their license.

THE REFERENCE COMMITTEE—A, on the report of the Council commented: "The Council gives an account of the activities during the past year and concludes the opinion that, 'The prime function and purpose of the Tennessee Medical Association is to serve the public welfare and citizens of this State by providing health services of the highest standards and maintaining dignity, competence and compassion for a God-ordained art which has been bestowed upon us'."

THE HOUSE accepted the report.

Supplemental Report of the Council

B. G. MITCHELL, M.D., Chairman

The Chairman of the Council presented a supplemental report of a special session of the Council conducted on April 2, 1970. All members of the Council were present in Nashville for the meeting conducted in the Third National Bank Building.

The purpose of the meeting was to consider the findings of the Utilization Review Committee of the Tennessee Medical Association with respect to the alleged unethical conduct of Dr. John Calvin Miller, Madisonville, Tennessee, in over-charging and over-utilization of medical services.

The Council studied the recommendations and findings of the Utilization Review Committee, wherein it had been found that Dr. Miller had over-utilized and over-charged for medical services. This had been found for the years 1968 and 1969, such findings reported by the Monroe County Medical Society.

The Council also found that the level of charges for professional services were above those which are usual and customary in rural areas, and could not be justified on the basis of cost. The Council also found that over-utilization seemed apparent by an over use of injectable drugs not only in duplication but in their flagrant use as a matter of choice over simpler and safer use of oral medication.

At the special Council meeting, Dr. Miller was present and was represented by legal counsel.

The TMA Council, in executive session following the hearing, adopted a motion

that was unanimously passed, to recommend to the House of Delegates that Dr. John Calvin Miller be suspended from membership in the Tennessee Medical Association for a period of two years, the effective date of suspension to be the date of action of the House of Delegates.

Dr. Mitchell moved that the House of Delegates accept this supplemental report and act upon the recommendations of the Council.

The recommendation was not referred to a Reference Committee and the action called for the House of Delegates, as a whole, to determine this matter.

Following the motion, there was discussion from a representative of the Monroe County Medical Society, after which the question was called for *and the House of Delegates unanimously adopted the recommendation of the Council calling for suspension of Dr. Miller as a member for a period of two years, effective April 8, 1970.*

Report of the Executive Director

J. E. BALLENTINE

Increase in volume is again the keynote for headquarters activity. The annual report of the Executive Director is an accounting of major activities since the meeting of the House in April, 1969. The usual work of the headquarters office was often interrupted by sudden, unexpected turns of events which demanded immediate consultations and rapid determinations.

A year ago, we were concerned with comprehensive health planning; regional medical programs; more government regulations; and were still in the development stages of Medicaid. Today we have been stressing peer review, cost of illness, Medicare and Medicaid, payments to physicians, the inequities of malpractice suits, and legislative issues and press relations.

In order to expedite the business of the Association, the staff must be flexible and dedicated to carry out the policy decisions established by this Association. Events of the past few years have multiplied and magnified the increasing complex issues in which the TMA has been involved on a daily basis. The trend promises to continue—at an accelerated rate.

To meet the short-term and long-range challenges facing us, innovations must be an ever present facet of the administrative process. Responsibilities within the staff are being constantly reviewed to assure maximum effectiveness.

A sampling of TMA's activities and projects are in the field of public service, socio-economics and health care, hospital problems, corporate practice, legislation, ethics nursing, governmental health programs, and others. Medicaid has been a tremendous problem in Tennessee during the past year. The report stated that practically every member of the Tennessee General Assembly had been contacted in advance of the Assembly sessions by a staff member to acquaint him with TMA's program.

It was pointed out that the staff is involved in many unpredictable duties that take untold man hours to determine. Public grievances are one of the major items that have grown tremendously during the past year. Others include physician placement, cult problems, membership misunderstandings and insurance plans. The Annual Meeting and session of the House of Delegates is another project requiring almost year round attention. Inflation presents a problem in conducting the meeting of an Association of this size and the cost is rapidly growing.

The report outlined the work involved with the financial management of the Association's affairs. The Executive Director's report summarized the actions taken toward the enlargement of the headquarters building and steps being put into effect to bring this about. Approximately 4,400 square feet will be contained in the new addition.

Other activities included implementing policies and approved programs of the House of Delegates, Board of Trustees, Officers, Council and Committees; administration and field liaison; communications-legislation-publications-exhibits- and promotions.

The report included activities in communications and a membership report. Also included was a statistical distribution of physicians in Tennessee, a new feature in the annual report of the Executive Director.

Details as to advertising and cost of producing the JOURNAL were presented along

with a list of major activities including long-range planning, working with intermediaries for Medicare and Medicaid; efforts to get physicians on hospital governing boards; continuing medical education and providing expended group insurance programs for TMA members.

The report concluded by stating that staff responsibilities are established in such a way that will provide the appropriate staff member with the training and direction to handle the responsibilities assigned. The complement of the staff continues at the same level and number as the previous year. Every effort is maintained to be realistic in retaining competent staff personnel with experience and knowhow, rather than to have them leave the Association's employment for positions with higher remuneration. This is most important in today's scarce market for capable personnel.

The report concluded with a reminder to the Association of several disciplines that will be becoming more involved with the practice of medicine. These are challenges to physicians and consideration should be carefully taken now to these coming events. The report concluded with an expression of appreciation to the Officers, Board of Trustees, and Committees for their advice, time and cooperation with the staff.

THE REFERENCE COMMITTEE—A, commented: "In the report, the Executive Director summarizes the activities of the administrative staff of TMA headquarters, reviewing their major activities during the year. He gives us an interesting statistical distribution of physicians in Tennessee and alerts us to the changes which will affect us all in the future."

THE HOUSE accepted the report.

Reports of Standing Committees

The following Standing Committees made reports to the House of Delegates. They were:

- Scientific Work and Post-Graduate Education, Harry A. Stone, Chairman
- Editorial Board, R. H. Kampmeier, Chairman
- Committee of Hospitals, A. Roy Tyrer, Jr., Chairman
- Liaison Committee to the Public Health Department, William A. Hensley, Chairman
- Legislative and Public Policy Committee, Morse Kochtitzky, Chairman
- Committee on Group Insurance, William T. Satterfield, Sr., Chairman

- Committee on Cancer, B. F. Byrd, Jr., Chairman
- Committee on Memoirs, Henry L. Douglass, Chairman
- Communications and Public Service Committee, O. M. McCallum, Chairman
- Rural Health Committee, Julian C. Lentz, Jr., Chairman

The above Committee Reports were referred to the appropriate Reference Committees and acted upon.

Standing Committees not reporting were:

- Committee on Health Insurance, Charles M. Hamilton, Chairman
- Advisory Committee to the Department of Public Welfare, Lamb B. Myhr, Chairman
- Mediation Committee, G. Baker Hubbard, Chairman
- Committee on Tennessee Medical Foundation, Charles A. Trahern, Chairman

All reports of Standing Committees that reported to the House are on record and are part of the official transactions of the House of Delegates, and are filed in the headquarters office.

Reports of Special Committees

The reports of Special Committees reporting to the House of Delegates were:

- Committee on Emergency Medical Services, C. Robert Clark, Chairman
- Committee on Environmental and Occupational Health, James J. Lawson, Jr., Chairman
- Advisory Committee to the Woman's Auxiliary, James W. Ellis, Chairman
- Committee on Mental Health, Frank W. Stevens, Chairman
- Committee on Health Project Contest, Lawrence L. Cohen, Chairman
- Tennessee Committee for American Medical Education and Research Foundation, Thomas J. Ellis, Chairman
- Committee on Sight Conservation, Ira L. Arnold, Chairman
- Interprofessional Liaison Committee, William H. Edwards, Chairman
- Committee on Youth and Education, Joe E. Tittle, Chairman
- Committee on Medicine and Religion, Ira L. Arnold, Chairman
- Committee on Rehabilitation, James C. Gardner, Chairman
- Committee on Governmental Medical Services, Tom E. Nesbitt, Chairman
- Utilization Review Committee, R. H. Kampmeier, Chairman
- Committee on Regional Medical Programs, W. O. Vaughan, Chairman
- Liaison Committee to Medical Schools, C. Gordon Peerman, Chairman

- Committee on Comprehensive Health Planning, Edward W. Reed, Chairman
- Committee on Continuing Medical Education, R. H. Kampmeier, Chairman

All Special Committees submitting reports to the House of Delegates were referred to the appropriate Reference Committees and acted upon by the House.

Copies of all Special Committees are a part of the official records as transactions of the Annual Session, and are on file in the Tennessee Medical Association's headquarters.

Only one Special Committee did not make a report. Having no business to be considered, the Claims Review Committee did not report. Charles M. Hamilton was Chairman.

Special Reports

- President—Woman's Auxiliary to TMA, Mrs. J. Ralph Rice, President
- AMA Delegation, Tom E. Nesbitt, Chairman
- TMA Student Education Fund, John H. Burkhart, Chairman

Also, a short report was given by Dr. Charles C. Smeltzer, a member of the Medical Board of the Blue Cross-Blue Shield of Tennessee. He reported on the activities and relationships between TMA and Blue Cross-Blue Shield.

These special reports were submitted to the appropriate Reference Committees and acted upon. All are on file in the headquarters office.

The Chairman of the Board of IMPACT gave an informational report to the House.

Special Ad Hoc Committee of the House of Delegates—Expansion of the Board of Trustees

J. MALCOLM ASTE, M.D., Chairman

"At the meeting of this House of Delegates in April, 1969, Resolution No. 11-69 was introduced by the Chattanooga-Hamilton County Medical Society, recommending that a study be made for the expansion of the Board of Trustees. This resolution called for a study committee of this House to be appointed by the Speaker to study the feasibility of expanding the Board of Trustees to the extent of one additional trustee to serve on the Board from each Grand Division of the State. The terms would be for

three years. This Committee was appointed consisting of Drs. Charles A. Trahern of Clarksville; Gilbert A. Rannick, Johnson City; Joseph L. Willoughby, Franklin, and David P. McCallie of Chattanooga, and myself as chairman.

The Ad Hoc Committee met on October 30, 1969, for the purpose of studying the present size of the Board of Trustees, and any advantages to be gained by expanding the Board. Some members of the Committee felt that the Board as presently constituted represented all areas of the state, and was large enough to conduct the work of the Association. There was a strong point of view that better representation throughout the state should be attained principally for better communication with the membership.

There were views expressed by members of the Committee, and consideration was given to the suggestion that the metropolitan medical societies that contain a large percent of the TMA membership, should be allowed to have more than one member of the Board of Trustees from their respective societies. However, it was the final conclusion of the members of this Committee that for the sake of unity among all of the county medical societies, that it should remain as presently exists in the Constitution and By-Laws, so that only one Trustee would be elected from any one county medical society.

The Committee thoughtfully considered the fact that the Board could become too large and therefore become unwieldy. It was for this reason that the Committee reached a compromise, and is recommending that the position of the Secretary of the Association be eliminated. Since the Board of Trustees elects the Treasurer of the Association from among the elected Trustees, the Committee recommends that the office of Secretary be combined with that of the Treasurer and to hereafter become the office of Secretary-Treasurer.

With this agreement, your Ad Hoc Committee adopted a recommendation that the Board of Trustees be expanded by adding one additional Trustee from each of the three Grand Divisions of the State. This would then make the Board which is now comprised of 11 members, consist of 13

members of the Board of Trustees. The Board would then consist of nine elected Trustees with four other members of the Board being the principal officers of the Association, namely the President, President-Elect, Past President, and Speaker of the House of Delegates.

Your Ad Hoc Committee recommends that the office of Vice-Speaker of the House remain as it is at present. The Vice-Speaker meets with the Board of Trustees at all sessions, but does not have a vote.

Mr. Speaker, your Ad Hoc Committee recommends that the above recommendations be adopted, and in order to effectuate this recommendation, your Committee is introducing as a part of this report, two amendments to the Constitution which are Amendments Nos. CA—2-70 and CA—3-70. Also, three additional amendments are necessary to the By-Laws and your Committee is introducing Amendments Nos. BA—5-70; BA—6-70, and BA—7-70. If the House approves these amendments to the Constitution and By-Laws, the Board of Trustees would then be enlarged to include one additional elected Trustee from each of the Grand Divisions of the State, making each grand division represented by three elected Trustees in addition to the Officers of the Association. The Board would thereafter be comprised of 13 members.

THE REFERENCE COMMITTEE on Amendments to the Constitution and By-Laws stated that: "The report of this Committee has been reviewed carefully by the Reference

Committee. We wish to commend this Committee on the work they have done and the report they have made. It is recommended that this Committee report be received and filed."

THE HOUSE accepted the report.

Health Project Contest Winners

The Seventeenth Annual Health Project Contest, sponsored by the Tennessee Medical Association and the Woman's Auxiliary to TMA, was again considered a success and worthwhile endeavor. This project was under the direction of the Health Project Contest Committee, Chairmanned by Dr. Lawrence L. Cohen.

Winning entries were:

First Place: Boone's Creek High School, Twelfth Grade Health Class, Jonesboro—"Drugs and Drug Abuse"—\$500.00

Second Place: North Nashville High School Science Club, Nashville—"Caution: Tobacco May Be Hazardous to the Health"—\$300.00

Third Place: Chattanooga High School, Tenth Grade Biology Class, Chattanooga—"Disease Surveys (Disease Detection)"—\$200.00

Fourth Place: Brainerd Senior High School, Medical Careers Club, Chattanooga—"Drugs—Uses and Abuses"—\$150.00

Fifth Place: Westwood Junior High School, Ninth Grade, Manchester—"Alcoholism"—\$100.00

The Fifth Place Award is presented by the Woman's Auxiliary to the Tennessee Medical Association.

The entries covered a variety of timely health care topics and reflected a tremendous amount of work expended by these students and their sponsors.

* * *

Abstract of the Minutes of the Meetings of the Board of Trustees, Tennessee Medical Association-- Sheraton-Peabody Hotel--Memphis, Tennessee April 8 and April 12, 1970

The Board of Trustees of the Tennessee Medical Association held two meetings during the Annual Meeting in Memphis. The dates of the meetings were Wednesday, April 8 and Sunday, April 12.

The principal business of the April 8 meeting was to hear a report and discussion presented by Dr. Paul Teschan, Director of the Tennessee Mid-South Regional Medical Program.

Dr. Teschan, in addressing members of the Board, pointed out that he desired close rapport with the leadership of the Tennessee Medical Association in the conduct of the RMP Program. He stated that the key reason for the discussion was to present his ideas for the maximum help for practitioners in rural practice. He discussed problems related to rural practice and a rural population. He stated that a health

care plan such as a consortium for rural areas would be the most feasible means of moving the rural practitioner into a better worked out method for rendering care for a greater number of people. Dr. Teschan stated that if health care is going to remain in the private sector, the Tennessee Medical Association should take a leading position in the RMP Program.

As a result of this discussion, the Board adopted a motion to present a resolution to the House of Delegates calling for closer cooperation between TMA and the Regional Medical Program, and to implement in principal, the ideas contained in Dr. Teschan's presentation. This resulted in Resolution No. 13-70 on the subject of Regional Medical Programs, presented to the House of Delegates and approved. (Resolution No. 13-70 and the action taken is a part of the Abstract in this issue of the JOURNAL.)

Resume of the Board Meeting of April 12, 1970

Members of the Board present were:

Francis H. Cole, M.D., Memphis
William T. Satterfield, Sr., M.D., Memphis
R. L. DeSaussure, M.D., Memphis
Byron O. Garner, M.D., Union City
Edward G. Johnson, M.D., Chattanooga
Morse Kochtitzky, M.D., Nashville
Tom E. Nesbitt, M.D., Nashville
C. Gordon Peerman, M.D., Nashville
J. J. Range, M.D., Johnson City
John H. Saffold, M.D., Knoxville
John O. Williams, Jr., M.D., Mt. Pleasant

Also attending was Dr. R. H. Haralson, Jr., Maryville, Vice Speaker of the House of Delegates, and Mr. Charles L. Cornelius, Jr., TMA Attorney.

Dr. William T. Satterfield, Sr., Memphis, was named Chairman of the Board; Dr. John O. Williams, Jr., Mt. Pleasant, Vice Chairman; and Dr. Morse Kochtitzky, Nashville, was elected Treasurer.

The following were nominated and elected to compose the Committees of the Board: *Executive Committee*—Drs. William T. Satterfield, Tom E. Nesbitt, Morse Kochtitzky, John H. Saffold, Francis H. Cole; *Finance Committee*—Drs. Kochtitzky, Nesbitt, Satterfield; *Committee on Planning and Development*—Drs. C. Gordon Peer-

man, Jr., Saffold, Nesbitt, Satterfield, Byron O. Garner, Cole, Charles C. Smeltzer; *Building Committee*—Drs. Robert L. Chalfant, Saffold, Satterfield; *Publications Committee*—Drs. Addison B. Scoville, Jr., James M. Hudgins, Harry A. Stone, R. H. Kampmeier, ex-officio; and Mr. J. E. Ballentine, Executive Director, TMA, ex-officio; *Ad Hoc Committee on Malpractice*—Drs. Satterfield, William H. Edwards, John R. Nelson, Jr., Arnold Haber, Jr., Harold B. Boyd, Thomas K. Ballard, R. L. DeSaussure, Greer Ricketson, E. Park Niceley, George K. Henshall, Jr., Chalfant, B. Tillman Hall, and Charles L. Cornelius, Jr., TMA Attorney; *Tennessee Committee for the AMA-ERF*—Drs. Perry M. Huggin, Bennett Y. Cowan, George G. Young, William F. Meacham, William T. Satterfield, Jr., John H. Burkhardt; *Memoirs Committee*—Drs. William J. Sheridan, Henry L. Douglass, S. Fred Strain, Sr.; *Ad Hoc Committee on Licensure*—Drs. Smeltzer, Cole, Saffold, Kochtitzky, David H. Turner, and Mr. Cornelius.

The Board appointed the Division Coordinators as follows: Dr. J. J. Range—Division on Scientific Services; Dr. Byron O. Garner—Division on Legislation & Governmental Medical Affairs; Dr. Edward G. Johnson—Division on Health Services and Socio-Economics; Dr. C. Gordon Peerman—Division on Communications and Public Service; and Dr. John O. Williams—Division on Medical Education.

The Board completed appointments to the Standing and Special Committees of the Association for 1970-71 and Nominated Dr. Anne Bolner, Fayetteville, to fill a vacancy on the IMPACT Board.

New Business

(1) The Board considered the final plans for expansion of the headquarters building as presented by the Executive Director. The Board authorized the Building Committee to proceed, recommending that the Committee not exceed the maximum of expenditures beyond that approved by the Board for new construction.

(2) Submitted three physicians names to the Governor for subsequent appointment of one for the Tennessee State Board of Examiners for Nursing Home Administrators. (Nominees were: Drs. M. F. Langston,

Chattanooga; Harry Helm, Columbia; Saul Siegel, Memphis.)

(3) Approved and adopted the First Quarter Financial Statement for TMA Fiscal Operations, and approved a grant to the Student American Medical Association Chapter at the University of Tennessee.

(4) The Board held considerable discussion concerning the Tennessee Medical Foundation, its status and future activities. The Board also considered the purpose and activities of the Foundation.

ACTION: A motion was made and seconded, that since the Board of Trustees is required to appoint the Tennessee Medical Foundation Committee, and the fact that the Committee then becomes the Board of Directors of the Tennessee Medical Foundation, that the Board of Trustees of TMA name the following nine members of the Board to become the Committee on Tennessee Medical Foundation. *The motion was passed.* The Foundation's committee was to be composed of Drs. Francis H. Cole, Memphis; William T. Satterfield, Sr., Memphis; R. L. DeSaussure, Memphis; Byron O. Garner, Union City; Edward G. Johnson, Chattanooga; C. Gordon Peerman, Nashville; J. J. Range, Johnson City; John H. Saffold, Knoxville; John O. Williams, Jr., Mt. Pleasant.

(5) The Board determined that advertising in the JOURNAL of the Association would continue its policy in not accepting advertising from lay-operated clinical laboratories.

(6) Accepted a report from Dr. Satterfield, Chairman of the Ad Hoc Committee on Malpractice. The Board approved three recommendations as submitted, which are as follows:

—TMA will develop and have introduced a resolution requesting the General Assembly to act on it for the purpose of having the Legislative Council to study the spiraling cost of medical malpractice insurance in Tennessee, the resolution to be drawn by the TMA attorney.

—The TMA Legislative Committee will be requested to determine the feasibility of a law requiring the plaintiff to put up a bond when bringing suit against a physician, with the understanding that the

bond will be forfeited if the case is found to be frivolous.

—The Chairman will discuss with representatives of the Tennessee Hospital Association, the development of a mechanism of joint arbitration when both the physician and a hospital is involved in malpractice litigation.

(7) The Board acted upon and referred to the Legislative Committee, Resolution No. 7-70, presented in the House of Delegates and referred to the Board of Trustees for action.

(8) The Board also considered the action taken on the Communications and Public Service Committee by the House of Delegates, wherein this report was referred to the Board of Trustees for study and consideration of establishing a public relations program, even if it required an increase in administrative staff. The action included requesting the Communications and Public Service Committee to be more active in developing a positive program. The Board adopted the motion that after each meeting of the Board of Trustees, that pertinent news that could be released should be approved by the President and the Board Chairman, and a statement be prepared and released to the news media in the various areas of the State over the name of the Officer or Trustee from that particular area.

(9) Approved Annual Meeting dates for 1973, the meeting to be held in Memphis on April 11-12-13 and 14. Relative to this discussion, the Board heard comments from Dr. Johnson requesting that several members had brought up the possibility of changing the dates of the Annual Meeting, since it conflicted with several national Special Society meetings. No action was taken by the Board.

(10) The Board considered a letter from Dr. Eugene Fowinkle, Commissioner of Public Health, relative to vacancies occurring on the Board of Medical Examiners. This Board is appointed by the Governor and the vacancies occurring on the Medical Examiners Board were outlined. The TMA President was delegated to consult with the Governor concerning these appointments as recommended by the Board.

(11) The Board considered several other

minor matters concerning administrative matters of the Association. The Board determined that the Third Quarter 1970 Board Meeting will be conducted on July 12 at Turtle Point, Alabama.

There being no further business, the Board adjourned at 1:30 P.M.

WILLIAM T. SATTERFIELD, SR., M.D.,
Chairman

J. E. BALLENTINE, Executive Director

* * *

Abstract of the Minutes of the Meetings of the Council, Tennessee Medical Association, Memphis, Tennessee, April 8 and April 11, 1970

The Council of the Tennessee Medical Association convened April 8, 1970, at 3:00 P.M., in the Sheraton-Peabody Hotel, Memphis, for the purpose of reviewing the Council's report and recommendations to the House of Delegates of the Tennessee Medical Association.

In addition, a Resolution to be presented to the House on the subject of "Peer Review Committee", and the Resolution recommending appointment of the Council by the President, was also discussed during this session. The Council adjourned until April 11.

* * *

The Council reconvened on April 11, with the Chairman, Dr. B. G. Mitchell, presiding. Council members present, in addition to Dr. Mitchell, were Drs. Alvin S. Crawford, J. Marsh Frere, Jr., Edward G. Johnson, Claude M. Williams, George L. Smith, and Lee Rush, Jr. Council members absent were B. K. Hibbett, III, and Laurence W. Jones.

Dr. Charles C. Smeltzer attended the Council meeting as a guest. Dr. Smeltzer is a member of the AMA Judicial Council.

The business considered by the Council was:

1. Discussed privately owned hospitals and ethics involved. It was found that many privately owned hospitals have operated ethically in the past, and physicians owning stock in such a facility are not acting in an unethical manner.

2. Dr. Mitchell requested assistance from

each District Council member to keep him informed of conditions and investigations of unethical practice in each Councilor district.

3. Dr. Smeltzer extended an invitation to members of the Council to attend the meeting of the AMA Judicial Council in Chicago in June. He stated that the latest edition of the principles of medical ethics would be published, and suggested that medical societies obtain copies of the updated standards for medical practice.

4. Indoctrination programs on medical ethics for new members of medical societies prior to or at the time of acceptance to membership was discussed.

5. Dr. B. G. Mitchell and Dr. Lee Rush, Jr., were re-elected Chairman and Secretary respectively, of the Council for the current year.

6. The number of physicians necessary to form a new county medical society was discussed. It was pointed out there are two societies in the Second District with five and seven members. This was considered to be a relatively small number to compose a society and the matter was discussed because applications for a new medical society must be approved by the Council member in that area before action can be taken by the House of Delegates of TMA.

The Council adjourned at 12:30 P.M.

LEE RUSH, JR., M.D., Secretary
B. G. MITCHELL, M.D., Chairman

1970 TMA Annual Meeting—House of Delegates Composition
1st Session: April 8—2nd Session: April 11

EX-OFFICIO MEMBERS

OFFICERS		First Session	Second Session
President	Francis H. Cole	Present	Present
President-Elect	Tom E. Nesbitt	Present	Present
Vice-President	Joe T. Tittle	Present	Present
Vice-President	Wm. H. Edwards	Present	Present
Vice-President	Charles N. Hickman	Present	Present
Secretary	C. Gordon Peerman	Present	Present
Speaker	R. L. DeSaussure	Present	Present
Vice-Speaker	R. H. Haralson, Jr.	Present	Present

ELECTED TRUSTEES		First Session	Second Session
East Tennessee	J. J. Range	Present	Present
East Tennessee	John H. Saffold	Present	Present
Middle Tennessee	Robert L. Chalfant	Present	Present
Middle Tennessee	John O. Williams, Jr.	Present	Present
West Tennessee	Byron O. Garner	Present	Present
West Tennessee	Wm. T. Satterfield, Sr.	Present	Present

AMA DELEGATES AND ALTERNATES		First Session	Second Session
Delegate to AMA	John H. Burkhart	Present	Present
Delegate to AMA	Bland W. Cannon	Present	Present
Delegate to AMA	Tom E. Nesbitt	Present	Present
Delegate to AMA	Wm. O. Vaughan	Present	Present
Alternate Delegate	Wm. F. Meacham	Present	Present
Alternate Delegate	Harmon L. Monroe	Present	Present
Alternate Delegate	A. Roy Tyrer, Jr.	Present	Present
Alternate Delegate	Julian K. Welch, Jr.	Present	Present

PAST PRESIDENTS		First Session	Second Session
Past President	Edward T. Newell, Jr.	Present	Present
Past President	G. Baker Hubbard	Present	Present
Past President	John H. Burkhart	Present	Present
Past President	R. H. Kampmeier	Present	Present

COUNCILORS		First Session	Second Session
First District	Alvin S. Crawford	Present	Present
Second District	J. Marsh Frere, Jr.	Present	Present
Third District	Edward G. Johnson	Present	Present
Fourth District	Claude M. Williams	Present	Present
Fifth District	George L. Smith	Present	Present
Sixth District	B. K. Hibbett, III	Present	Present
Seventh District	Carson E. Taylor	Present	Present
Eighth District	Lee Rush, Jr.	Present	Present
Ninth District	Laurence W. Jones	Present	Present
Tenth District	B. G. Mitchell	Present	Present

OTHERS		First Session	Second Session
Commissioner, Public Health	Eugene W. Fowinkle	Present	Present
Commissioner, Mental Health	Frank H. Lutan	Present	Present

DELEGATES

EAST TENNESSEE GRAND DIVISION

County Society		First Session	Second Session
BLOUNT	J. N. Proffitt	Present	Present
	H. T. Vandergriff (Alt.)	Present	Present
BRADLEY	Wm. A. Garrett	Present	Present
CAMPBELL	M. L. Davis	Present	Present
CHATTANOOGA-			
HAMILTON	John W. Adams, Jr.	Present	Present
	(Alt.)		
	Thomas L. Buttram	Present	Present
	(Alt.)		
	C. Robert Clark (Alt.)	Present	Present
	Robert G. Demos	Present	Present
	Durwood L. Kirk	Present	Present
	David P. McCallie	Present	Present
	Paul V. Nolan	Present	Present
	Harry A. Stone	Present	Present
	David H. Turner	Present	Present
	Robert A. Waters	Present	Present
COCKE	F. M. Vallentine	Present	Present
CUMBERLAND	Joe K. Wallace (Alt.)	Present	Present
GREENE	H. H. Henard	Present	Present
HAMBLEN	J. W. Richardson	Present	Present
HAWKINS			
KNOXVILLE			
ACADEMY	Walter H. Benedict	Present	Present
	Jacob T. Bradsher	Present	Present
	Robt. P. Hornsby (Alt.)	Present	Present
	Perry M. Huggin	Present	Present
	John O. Kennedy	Present	Present
	John E. Kesterson	Present	Present
	Travis E. Morgan	Present	Present
	Ira S. Pierce	Present	Present
	Charles C. Smeltzer	Present	Present
	John H. Wolaver (Alt.)	Present	Present
	George Zirkle	Present	Present
McMINN			
MONROE	F. Houston Lowry	Present	Present
ROANE-ANDERSON	E. C. Cunningham	Present	Present
	Joe E. Tittle	Present	Present
SCOTT	Roy McDonald	Present	Present
SEVIER	Charles L. Roach	Present	Present

SULLIVAN- JOHNSON	F. E. Nicley	Present	Present
	E. Kent Carter	Present	Present
	B. Y. Cowan	Present	Present

WASHINGTON- CARTER-UNICOI	C. E. Allen	Present	Present
	Nat E. Hyder (Alt.)	Present	Present
	G. A. Rannick	Present	Present
	T. P. Potter	Present	Present

MIDDLE TENNESSEE GRAND DIVISION

BEDFORD	John S. Derryberry	Present	Present
BENTON- HUMPHREYS			
COFFEE	Ralph L. Brickell	Present	Present
NASHVILLE			
ACADEMY	Ben J. Alper	Present	Present

	J. Sumpter Anderson	Present	Present
	(Alt.)		
	Russell T. Birmingham	Present	Present
	Robert L. Bomar (Alt.)	Present	Present
	George W. Bounds	Present	Present
	B. F. Byrd, Jr.	Present	Present
	James W. Ellis	Present	Present
	James H. Fleming (Alt.)	Present	Present
	James W. Hays (Alt.)	Present	Present
	Herman J. Kaplan	Present	Present
	Armistead Nelson (Alt.)	Present	Present
	Richard Ownbey (Alt.)	Present	Present
	Eugene M. Regen, Jr.	Present	Present
	Louis Rosenfeld	Present	Present
	W. O. Tirrill, III (Alt.)	Present	Present
	Frank C. Womack	Present	Present
DICKSON	Wm. M. Jackson	Present	Present
FENTRESS	Guy C. Pinckley	Present	Present
FRANKLIN	George L. Smith	Present	Present

	Dewey W. Hood (Alt.)	Present	Present
GILES	Wm. K. Owen	Present	Present
HICKMAN-PERRY	Parker D. Elrod	Present	Present
JACKSON	J. S. Johnson	Present	Present
LAWRENCE	Boyd P. Davidson	Present	Present
LINCOLN	Anne U. Bolner	Present	Present
MACON	C. C. Chitwood	Present	Present

MARSHALL	Kenneth J. Phelps	Present	Present
MAURY	Lawrence R. Nickell	Present	Present
	Geo. R. Mayfield (Alt.)	Present	Present
MONTGOMERY	B. T. Iglehart	Present	Present
OVERTON	M. E. Clark	Present	Present
PUTNAM	Thurman Shipley (Alt.)	Present	Present
ROBERTSON	Warren G. Hayes	Present	Present
RUTHERFORD	Carl E. Adams	Present	Present
SMITH	John M. Roe	Present	Present
SUMNER	J. R. Blackshear	Present	Present
WARREN	J. C. Gaw	Present	Present
WHITE	Robert F. Baker	Present	Present

WILLIAMSON	Joseph Willoughby	Present	Present
	R. H. Hutcheson (Alt.)	Present	Present
WILSON	J. C. Bradshaw (Alt.)	Present	Present

WEST TENNESSEE GRAND DIVISION

CONSOLIDATED	Thomas K. Ballard	Present	Present
	Max A. Crocker (Alt.)	Present	Present
	James H. Donnell (Alt.)	Present	Present
	Bobby Higgs	Present	Present
	Montie E. Smith, Jr.	Present	Present
HENRY	E. P. Mobley	Present	Present
MEMPHIS-SHELBY	J. Malcolm Aste	Present	Present

	Howard A. Boone	Present	Present
	Harold B. Boyd	Present	Present
	Boyer M. Brady (Alt.)	Present	Present
	R. A. Calandrucchio	Present	Present
	Fenwick W. Chappell	Present	Present
	Erwin M. Cox (Alt.)	Present	Present
	John B. Dorian	Present	Present
	John K. Duckworth	Present	Present
	Cyrus C. Erickson (Alt.)	Present	Present
	Eugene W. Gadberry	Present	Present
	C. D. Hawkes	Present	Present
	Jean M. Hawkes	Present	Present
	John D. Hughes	Present	Present
	Gilbert J. Levy (Alt.)	Present	Present
	Robt. P. McBurney	Present	Present
	Tinnin Martin	Present	Present
	Roland H. Myers	Present	Present
	John D. Peoples (Alt.)	Present	Present
	John D. Pigott	Present	Present
	Henry G. Rudner, Jr.	Present	Present
	Merlin L. Trumbull	Present	Present
	(Alt.)		
	John D. Young, Jr.	Present	Present

NORTHWEST	J. Kelley Avery	Present	Present
ACADEMY	Wm. O. Murray	Present	Present
TIPTON	Warren A. Alexander	Present	Present
WEAKLEY			

The information in the Roll Call was taken from the attendance record cards signed by the delegates prior to the meetings of the House, April 8 and 11.

CATASTROPHE

EXCESS MILLION DOLLAR INSURANCE

PROFESSIONAL AND PERSONAL

APPROVED BY: TENNESSEE MEDICAL ASSOCIATION

A. RESIDENCES and farms owned or occupied, including those owned by relatives or wards.

Required Basic Insurance—\$50,000 personal liability.

B. AUTOMOBILES owned, hired or regularly used by applicant or residents of his household. (Include all land motor vehicles.)

Required Basic Insurance—\$100,000/300,000 bodily injury and \$10,000 property damage or \$100,000 single limit.

C. WATERCRAFT under 26 feet in length owned, hired or used.

Required Basic Insurance—\$50,000.

D. AIRCRAFT

Required Basic Insurance—\$1,000,000 Single Limit.

E. BUSINESS PROPERTY for which coverage is desired.

Required Basic Insurance—\$100,000/300,000 bodily injury and \$10,000 property damage or \$100,000 single limit.

F. PROFESSIONAL LIABILITY

Required Basic Insurance—\$100,000/\$300,000
\$25,000.00 Major Medical for you and your family—\$10,000 deductible included with the above—no extra premium.

PROFESSIONAL LIABILITY

Required Basic Insurance—\$100,000/\$300,000

Class 1—PHYSICIANS doing no surgery.

Class 2—PHYSICIANS doing minor surgery or assisting in major surgery on own patients.

Class 3—SURGEONS—General Practitioners who perform major surgery or assist in major surgery on other than their own patients and specialists hereafter indicated:

Cardiologists (including catheterization, but not including cardiac surgery)
Ophthalmologists
Proctologists

Class 4—SURGEONS—specialists

Cardiac Surgeons
Otolaryngologists—No Plastic Surgery
Surgeons—General (Specialists in general surgery)
Thoracic Surgeons
Urologists
Vascular Surgeons

Class 5—SURGEONS—specialists

Anesthesiologists
Neurosurgeons
Obstetricians—Gynecologists
Orthopedists
Otolaryngologists—Plastic Surgery
Plastic Surgeons

Basic charge including initial residence \$35.

Each additional residence and farm \$ 3.

Initial Auto \$20.

For each additional Auto add \$11.

Each outboard motorboat 25 HP or more \$ 9.

Each inboard motorboat over 50 HP \$ 9.

All other boats under 26 feet Included

Office Premises \$ 5.

(SEE LEFT FOR EXPLANATION)

Class 1 \$ 27.

Class 2 \$ 35.

Class 3 \$ 70.

Class 4 \$ 88.

Class 5 \$106.

UNKNOWN LIABILITIES are covered less a \$250.00 deductible.

Limits of Liability

A single limit of \$1,000,000 applies to each occurrence during the policy period except that Professional Liability Coverage provides a total limit for all damages during each policy year of \$1,000,000.

If you desire limits of liability higher than \$1,000,000 you can increase coverage in multiples of \$1,000,000 up to a maximum of \$10,000,000.

**Underwritten by:
The Statesman
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Knoxville Branch

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Knoxville, Tenn. 37902

Phone 524-7335



Administrators

MEDICAL DIGEST

News of Interest to Doctors in Tennessee

ELECTIONS—RESUME OF ACTIONS—TMA HOUSE OF DELEGATES

1970 ANNUAL MEETING ATTENDANCE—844 . . . Total physician registration at the annual meeting conducted in Memphis, April 8-11, resulted in 513 doctors in attendance who are members of TMA; 96 guest physicians, 151 exhibitors and 84 members of the Woman's Auxiliary to TMA, bringing the total attendance to 844.

* * * * *

NEW OFFICERS FOR 1970-71 . . . Installed Dr. Tom E. Nesbitt, Nashville, as President; elected Dr. John H. Saffold, Knoxville, President-Elect; re-elected Dr. R. L. DeSaussure, Memphis, Speaker of the House of Delegates; re-elected Dr. Robert H. Haralson, Jr., Maryville, as Vice-Speaker of the House of Delegates; elected Vice-Presidents: Drs. E. Kent Carter, Kingsport, East Tennessee; William K. Owen, Pulaski, Middle Tennessee; and J. Kelley Avery, Union City, West Tennessee . . . Dr. Morse Kochtitzky, Nashville, elected Secretary.

* * * * *

TRUSTEES AND COUNCILORS . . . Elected to the Board of Trustees to complete the unexpired term of Dr. John H. Saffold was: Dr. Edward G. Johnson, Chattanooga; elected to the Board for a three-year term; Dr. C. Gordon Peerman, Jr., Nashville. Dr. Wm. T. Satterfield, Sr., Memphis, was named Chairman of the Board of Trustees, and Dr. John O. Williams, Jr., Mt. Pleasant, was elected Vice-Chairman . . . MEMBERS OF THE COUNCIL: Newly elected Councilors were Dr. Harry A. Stone, Chattanooga, for the Third District, and Dr. Kenneth J. Phelps, Lewisburg, for the Seventh District. All were elected for two year terms . . . Re-elected for two year terms: Drs. Alvin S. Crawford, Bristol, First District; George L. Smith, Winchester, Fifth District, and Laurence W. Jones, Union City, Ninth District.

* * * * *

AMA DELEGATES RE-ELECTED . . . Dr. John H. Burkhart, Knoxville, and Dr. Tom E. Nesbitt, Nashville, were re-elected delegates to the American Medical Association. Alternate delegates: Drs. A. Roy Tyrer, Jr., Memphis, and Harmon L. Monroe, Erwin. (Dr. Monroe is now deceased.) All of the elections were for two year terms beginning January 1, 1971.

* * * * *

TWO TENNESSEE PHYSICIANS HONORED . . . Dr. Robert C. Kimbrough, Madisonville, was elected by the House of Delegates to receive the "Outstanding Physician-of-the-Year Award" for 1970 . . . Dr. Maston K. Callison, Memphis, was selected by the Board of Trustees to receive the "Distinguished Service Award" for his many contributions to medicine. These awards were presented at the President's Banquet on the evening of April 10, at the Sheraton-Peabody Hotel.

RESOLUTIONS . . . Adopted a resolution commending Dr. R. H. Hutcheson, former Commissioner of Public Health in the State. The House presented a framed copy of the resolution as a personal memento . . . Adopted a resolution to establish Peer Review Committees on the state and county society level, such committees to serve as appeal bodies from the decisions of hospital utilization committees at the county level, and to serve as a primary investigating board for questions of over-utilization, over-charging or over-servicing outside of hospitals. . . . Adopted a resolution designating the Tennessee Medical Association as the only approving body for Blue Shield Plans in Tennessee . . . Adopted a resolution urging local medical societies to give support and enlist physician participation in local comprehensive health planning programs, particularly involving rural communities and to urge rural representation on committees . . . Adopted a resolution stating TMA's desirability for Physician Assistants programs, and encourage institutions of higher education to develop such programs . . . Adopted a resolution in opposition to government agencies' efforts to take over confidential records pertaining to patients and physicians . . . Referred to the Board of Trustees and Legislative Committee a resolution directing the establishment of a state Eugenics Board . . . Tabled a resolution calling for changes in the Tennessee Medicaid program . . . Amended and adopted a resolution calling for re-examination by the Tennessee Department of Public Health for equal fee payments throughout the state for Medicare and Medicaid patients . . . Adopted a resolution accepting in principle the recommendations of the Joint Commission on Mental Health of Children . . . Adopted a resolution encouraging institutions of higher education to develop new health career programs to follow guidelines of the AMA Board of Trustees, recently adopted . . . Adopted a resolution encouraging the Tennessee Mid-South Regional Medical Program to assist rural physicians in their practice and recruit other physicians for service in these areas, and to continue the close liaison with TMA for RMP programs . . . Adopted a resolution calling for representation of a physician on the Board of Trustees of the University of Tennessee.

* * * * *

OFFICERS REPORTS . . . The President, Secretary, the Board of Trustees, the Treasurer, the Council and the Executive Director submitted written reports to the House.

* * * * *

COMMITTEE REPORTS . . . The House approved the report of the TMA Legislative Committee outlining major areas of legislation in which TMA was involved . . . Heard the Legislative Committee report success in amending the statutes which will now permit graduates of foreign medical schools, who have become citizens of the United States, to gain license in Tennessee through reciprocity, and the committee reported its success in keeping chiropractors and podiatrists from being equated with physicians as such pertained to government health care programs. The Executive Director reported that construction of an addition to the TMA headquarters building of 4,400 square feet is under construction, sufficient for the Association's needs for the foreseeable future.

Public Service

Communications Legislation

Hadley Williams, Public Service Director

TMA LEGISLATIVE COMMITTEE VISITS WASHINGTON . . . Members of the Legislative Committee, TMA officers, Metropolitan Medical Society officers and staff composed the 26-man delegation that visited the Nation's Capitol May 6th to meet with Tennessee's nine Congressmen and two Senators. All but one member of the Tennessee congressional delegation attended a Luncheon hosted by TMA in the new Rayburn Building. Dr. O. Morse Kochtitzky of Nashville, chairman of the Legislative Committee, presided over the group that concluded the busy one-day visit with a tour of the new Washington office of the American Medical Association. (See photo on page 519).

* * * * *

MEDICAL ASSISTANTS ELECT NEW OFFICERS . . . The Medical Assistants Society of Tennessee conducted their Annual Meeting in Gatlinburg April 24-25 and Mrs. Sue McJunkin of Knoxville was installed as 1970 President. More than 100 members of the organization attended the meeting which saw Mrs. Mickey Maxwell of Maryville named President-Elect and Mrs. Betty Wilson of Savannah elected as Vice-President. Elected secretary was Mrs. Mary Lou Archer of Johnson City and Mrs. Ruby Wolfe of Chattanooga was named treasurer of the organization. Dr. Tom E. Nesbitt of Nashville, TMA President, was a guest speaker at the Officer Installation Banquet (see photo on page 521).

* * * * *

PERSONAL HEALTH EXPENDITURES . . . Recent figures from the Department of Health, Education and Welfare show that physicians received 23.3 per cent of the Health Care dollar expended for personal health care during 1968-69. The largest share went for hospital care, 41.7, with drugs receiving 12.1 per cent, dentists and other professionals 10.3, nursing homes 4.5, and 8.3 per cent went for administration. Total expenditures for Medicare show that hospitals receive 65.1 per cent of the health dollar and physicians 22.6 while nursing homes receive 6 per cent, other professionals 1.1 per cent and administration costs represent 5 per cent. The breakdown under Medicaid nationally differs even more with physician services representing only 11.4 per cent of the total expenditures. Hospital care under Medicaid represented 37.8 per cent of expenditures and nursing homes received 30.7 per cent, while 6.7 per cent goes for drugs, 5.6 per cent for dental services, 0.9 per cent for other professionals and 7 per cent for administration.

* * * * *

ONLY 61 PER CENT OF NATION'S PHYSICIANS ARE IN ACTIVE PRACTICE . . . Of the 328,366 physicians in the United States, only 199,997 or approximately 61 per cent, are in active practice. The effective physician-patient ratio is thus about one physician per 1,000 persons.

APA WANTS DRUG ANTISUBSTITUTION LAWS REPEALED . . . The American Pharmaceutical Association's House of Delegates recently adopted a resolution calling for repeal of antisubstitution laws concerning the filling of prescriptions by pharmacists. Previously it was unethical for pharmacists to dispense any drug other than the specific drug product prescribed by an MD and most states have laws supporting this ethic. Repeal of such laws would place decision-making in the hands of pharmacists instead of a physician. AMA vigorously opposes the action.

* * * * *

HOSPITALS TO RECEIVE HIGHER MEDICARE PAYMENTS . . . The Social Security Administration has decided on new regulations to enable Hospitals and Nursing Homes to claim additional costs for furnishing services to the elderly. The American Hospital Association has pressured for the change which will be retroactive to last July 1. The new payments are based on 3 nursing-cost studies made by hospitals and AHA which put the average cost of nursing services for elderly patients 8.5% above that for most younger patients. The new allowance will restore approximately 60% of the funds hospitals stood to lose from the elimination of the cost-plus factor under Medicare.

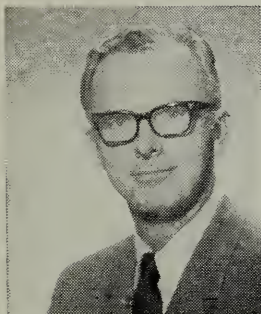
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PHYSICIAN'S CHARGES AND WAGES . . . The Social Security Administration's chief actuary, Robert J. Myers, has written a book entitled "Medicare" in which he compares annual increases in physician's charges and in general wages. Mr. Myers' figures show that the average annual increase in MD charges for the years 1956 through 1965 was 3.0% while the average annual increase in wages during the same period was 3.6%. Mr. Myers points out that physician's charges were expected to increase "over the short-range future" after passage of Medicare and the increases were 5.9% in 1966, 7.3% in 1967 and 5.5% in 1968. The total increase in physician's charges during the three-year period was only 1.0% above the rise in the general wage level. He also points out that for the 12-year period of 1956 through 1968, the average annual increase in physician's charges was .5% below the average annual increase in general wages. During that 12-year period, wages rose an average of 4.2% each year while physician's charges rose only 3.7%. This comparison fails to show that fees a physician receives must include 35 to 40% for overhead and that a physician must provide his own fringe benefits from his charges. Most wage earners have no overhead and their fringe benefits, 15 to 20% of their annual salaries, are provided in addition to their wages.

* * * * *

JOINT COMMISSION ADOPTS REVISED STANDARDS . . . The Joint Commission on Accreditation of Hospitals recently adopted revised standards for Hospital accreditation and interpretive material including the statement that "where legally permissible, physicians who are members of the medical staff shall be eligible for, and should be included in, membership on hospital governing bodies in the same manner as are other knowledgeable and effective individuals." Both AMA and TMA have repeatedly adopted resolutions calling for MD representation on hospital governing boards where permissible by law.

President's Page



TOM E. NESBITT

In the coming months we will all be hearing a great deal more about "HMO's." This seems likely to be the phrase coined in Washington to describe the Health Maintenance Organizations, destined to be the product of the new proposed Part C of Medicare.

The House Ways and Means Committee of the 91st Congress has just authorized such changes by their amendments to the Social Security Act. These will get congressional consideration. This plan provides for government payment for individuals who elect to choose this type of coverage in place of their coverage under Part A and Part B of Medicare. In the legislation being considered, an HMO is defined as "a prepaid group health or other capitation plan." Presumably this will entail closed-panel clinics of physicians on a salary basis contracting to care for individuals who choose to enroll in such a plan, as opposed to the traditional fee for service concept which currently prevails in our country.

In view of this far-reaching decision by the Ways and Means Committee, it would seem proper for us to consider the impact of such an innovation on the medical scene. There seems to be universal agreement that the so called health-care crisis in this country is composed of four primary deficiencies. These are: (1) The lack of a sufficient number of physicians; (2) The critical shortage of allied health personnel; (3) The urgent need for health-care services for the rural areas, the ghetto areas, and the indigent poor; (4) The rapidly rising cost of medical care services.

With these defined medical needs of our nation, it therefore would seem basic for a consideration of HMO's that we ask this vital question—just where will HMO's contribute to the solution of any of these four basic problems? Certainly the HMO will magnify the need of additional health personnel and physicians, for they will serve to vastly increase the already overwhelming demand for services created by Medicaid and Medicare programs. The needs of the poor, plus the rural and those in the ghettos, will in no way be served by the HMO's whose existence requires pre-payment participation of funds, and guaranteed providers of services. The economies of such a concept in controlling cost have as yet to be proven to the satisfaction of any reliable observer.

What then are the objectives of HMO's, and what are the motives behind their establishment? In reality they must be considered as the next great step forward in the establishment of a compulsory national health system primarily sponsored by elements in organized labor, and other social groups whose primary objectives are purely political. These objectives are the destruction of the influence of the profession of medicine in this country, and the elimination of physicians as a sphere of influence in the community by creating distrust of the profession through the press and communications media, and subjecting physicians to the forced acceptance of government salaries for participation in closed panels. These would then become the principal system for delivering health-care in the United States.

As soon as every physician understands the real motives behind this plan, the stronger will be our position in influencing not only our legislators, but our friends and patients.

Sincerely,

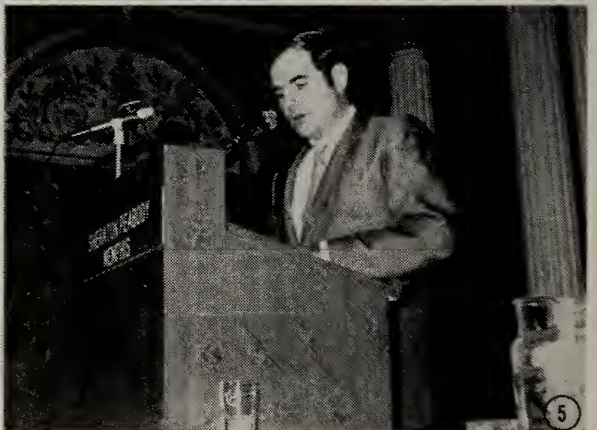
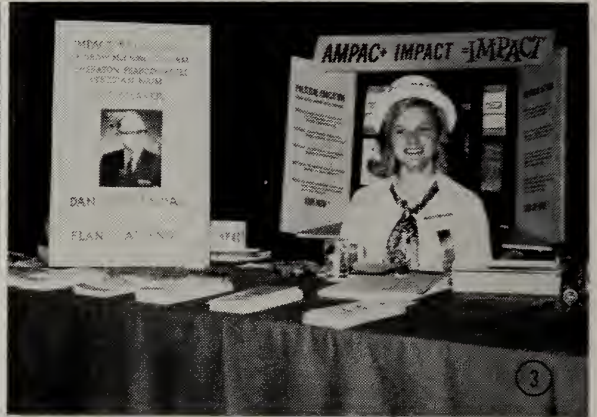
A handwritten signature in cursive script that reads "Tom E. Nesbitt".

M.D.

President

ANNUAL MEETING HIGHLIGHTS

The 135th annual meeting of TMA was most successful. The Journal camera was on hand as: (1) the Headquarters Staff assembled the mountain of materials into an organized Delegates kit; (2) the famous Peabody Hotel ducks paraded down their red carpet each day at 3:00 p.m.; (3) Mrs. Polly Wiygul sold tickets to the annual IMPACT Breakfast; (4) the House of Delegates knuckled down to hard work and deliberation; (5) Governor Buford Ellington's Administrative Assistant Bo Roberts addressed the General Scientific meeting; (6) hundreds of physicians visited the Technical and Scientific exhibits; (7) Dean Maston Callison (left) accepted the Distinguished Service Award from Dr. John Saffold, chairman of the Board of Trustees; (8) Dr. Robert Chalfant presented Miss Linda Taylor and Lendell Fitzgerald of Jonesboro High School a check for \$500; (9) Dr. R. C. Kimbrough of Madisonville received his Physician-of-the-Year Award from Speaker of the House, Dr. R. L. DeSaussure of Memphis; and (10) the new TMA President, Dr. Tom E. Nesbitt of Nashville, accepted the gavel from the retiring President, Dr. Francis H. Cole of Memphis.





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JUNE, 1970

EDITORIAL

HARMON L. MONROE

PAST PRESIDENT

On April 15, following an operation, a life dedicated to serving his fellowmen came to an end for Harmon Monroe. For the more than thirty years Dr. Monroe practiced medicine in Erwin, the citizens of the community had one who was interested in their spiritual and physical well-being.

He was a *complete* citizen who gladly assumed any role imposed upon him by the people of his community. In addition to two terms as mayor of Erwin, he carried responsibilities in his church, in party politics and in service organizations. His many contributions to Erwin and Unicoi County were recognized in 1960 when Dr. Monroe was named Citizen of the Year.

As a Captain and battalion surgeon with a Tank Destroyer Unit in the North African Campaign he was awarded the Silver Star for gallantry in action.

Harmon Monroe's interests in the provision of better medical care for all showed themselves early in his practice years. He had the inspiration for, and doggedly pursued it to the establishment of the Unicoi County Memorial Hospital, serving

as the first chairman of the hospital board and as Chief of Staff upon several occasions. As early as 1936 Dr. Monroe fathered the idea of furnishing hospital care for the indigent sick of his county, an idea which he carried to the Tennessee Medical Association and actively supported until it became law in 1953. He and others of his colleagues used their influence for the passage of this Act for Hospital Service of the Indigent, whereby hospitalization was made available with public funds and in which the doctor was forbidden to charge a fee. It is important to recognize that this antedated today's federal support of Medicare and other programs. His interests in industrial medicine placed him on the first advisory council of the Radiological Health Service of the State.

Dr. Monroe's leadership was repeatedly acknowledged by his colleagues, for he served as President of the Tri-County Medical Society, the Tennessee Industrial Medical Association and the Tennessee Academy of General Practice which named him General Practitioner of the year in 1960. His roles in the Tennessee Medical Association were many and extended over the years. He became Vice-President for East Tennessee in 1950. He was elected to the Council for the First District in 1953 and to the Board of Trustees in 1956. He was named President Elect in 1958 and served as President in 1959-60.

Harmon Monroe was one who, if committed to something in which he had belief and faith, gave unstintingly of his time and energy to this commitment. Thus, he served on many of TMA's committees, and important ones, as Vice-Chairman of the Public Service Committee when it was instrumental in passage of the Indigent Hospitalization program, The Legislative and Public Policy Committee, Committee on Workmen's Compensation, Committee on Environmental and Occupational Health, member of the Committee on Postgraduate Education, and as Chairman of the Labor Liaison Committee.

Harmon Monroe's life, then, was one of dedication to the well-being of his fellowman and to contributions for the enhancement of the image of the medical profession. It is difficult to put these matters in words.

For the first of these attributes the proof lies in the establishment of the Dr. H. L. Monroe Memorial Fund by the citizens of Erwin. Too, one should read the words spoken in his praise by his fellow citizens at the dedication of the Unicoi County Medical Hospital in 1953.* For the second attribute, his own words define aims of his efforts in TMA—

"We must always keep in mind the broad concepts of Public Service. If we will think, for one moment, about the ever widening fields of opportunity to actively implement other phases of our Public Service program we will realize that only a beginning has been made. We must not and cannot rest on our laurels at this point. We must bring into proper focus all activities of our TSMA and use the micrometer of public opinion along with our code of ethics in charting our future course. We must be ready, willing, and anxious to reach out in all directions with cooperation, understanding, and assistance to other groups and then we will be understood and regain some of our lost prestige.

"Our activities will not always be spectacular or wrapped in glamour but if we look straight ahead with integrity, frankness, understanding, and determination our efforts will be rewarded by better medical care for the people of Tennessee under far more pleasant conditions for the Physicians of Tennessee."

It was a privilege to have known and to have sat with Harmon Monroe, and to have heard him express his thoughts and visions. If members of the medical profession emulated this man, criticisms commonly aimed at the profession would be empty.

R. H. K.

*Journal of the Tennessee Medical Association, Feb. 1953—"Yellow page."

IN MEMORIAM

Frazier, Horace Marion, Nashville. Died April 18, 1970, Age 43. Graduate of Meharry Medical College, 1953. Member of Nashville Academy of Medicine.

Johnson, Shelton E., Jackson. Died April 4, 1970, Age 89. Graduate of University of Tennessee Medical School, 1913. Former member of Memphis and Shelby County Medical Society.

McAskill, John Turney, Memphis. Died April 20, 1970, Age 39. Graduate of University of Tennessee Medical School, 1961. Member of Memphis and Shelby County Medical Society.

Monroe, Harmon L., Erwin. Died April 15,

1970, Age 61. Graduate of Emory University, 1932. Member of Washington-Carter-Unicoi County Medical Society.

Richards, Alma, Memphis. Died April 16, 1970. Age 81. Graduate of University of Tennessee Medical School, 1917. Member of Memphis and Shelby County Medical Society.

Speed, James Spence, Memphis. Died April 30, 1970, Age 80. Graduate of Johns Hopkins Medical School, 1916. Member of Memphis and Shelby County Medical Society.

Spotwood, David Marshall, Pulaski. Died April 1, 1970, Age 63. Graduate of Meharry Medical College, 1943. Member of Giles County Medical Society.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES



New Members

The Journal takes the opportunity to welcome these new Tennessee Medical Association members.

CONSOLIDATED MEDICAL ASSEMBLY OF WEST TENNESSEE

A. Grigg Churchwell, M.D., Savannah

HENRY COUNTY MEDICAL SOCIETY

Walter P. Griffey, Sr., M.D., Buchanan

KNOXVILLE ACADEMY OF MEDICINE

Gordon S. Ballou, M.D., Knoxville

Madison Cawein, M.D., Knoxville

Thomas E. Lester, M.D., Knoxville

Carter Miller, M.D., Knoxville

Bergein F. Overholt, M.D., Knoxville

Herbert N. Whanger, M.D., Knoxville

John H. Williams, M.D., Knoxville

MONTGOMERY COUNTY MEDICAL SOCIETY

T. J. Montgomery, M.D., Clarksville

NASHVILLE ACADEMY OF MEDICINE

Louis J. Bernard, M.D., Nashville

Jerry M. Bryson, M.D., Nashville

Isabella S. Collins, M.D., Nashville

Norman L. Sims, M.D., Madison

WASHINGTON-CARTER-UNICOI COUNTY MEDICAL SOCIETY

R. H. Reiff, M.D., Elizabethton

A. K. Tullidge, M.D., Mountain City

Nashville Academy of Medicine

The May meeting of the Nashville Academy of Medicine was held at the Baptist Hospital in Nashville. Mr. Dan May, President of the Mid-Cumberland Comprehensive Health Planning Council, moderated a panel discussion on "New Medical Care Delivery Systems." Other panel participants were Dr. Robert S. Anderson, Director of Comprehensive Health Services at Meharry Medical College, Dr. Leslie Falk, Director of the Matthew Walker Health Center, and Dr. Robert Metcalfe, Associate Director of the Tennessee Mid-South Regional Medical Program. The program was aimed at informing physicians about the many medical and health services which have developed in this area.

Also, Dr. William Edwards, Chairman of the Academy's Delegation to the TMA House, reported on matters considered and actions taken during the recent sessions of the TMA House of Delegates in Memphis.

A disaster test drill was held on April 28 to determine what aspects need attention and how a real disaster should be handled. This drill involved four area hospitals, the Metro Fire and Police Departments, the Civil Defense Department, Red Cross, National Guard Medical Battalion, and an Academy triage team. The Academy has eight triage teams, consisting of four physicians per team, available to respond to a disaster call.

To evaluate the results of the drill, a meeting of the Community Disaster Planning Council, consisting of representatives from the participating organizations, was held on May 7. The Council agreed that inadequate communications between the involved groups was the primary problem. A special meeting will be held soon to work out these communication difficulties.

Also, coordination and utilization of available vehicles, primarily for transportation of victims, but also for mobile communications units were felt to need improvement. Other aspects of the drill were discussed but it was generally agreed that the operation was much more successful than was initially expected. Efforts will be made in the future to hold similar drills in different areas of the county.

Roane-Anderson County Medical Society

The Roane-Anderson County Medical Society held its April meeting in the cafeteria of the Oak Ridge Hospital. The speaker for the evening was Dr. Vernon Reynolds, Associate Professor of Surgery at Vanderbilt University Medical School, who discussed "The Present Status of Chemotherapy for Malignancy."

Also, the Delegates to the TMA House reported on the actions taken during the House's recent sessions in Memphis.

Knoxville Academy of Medicine

The principal speaker for the May meeting of the Knoxville Academy of Medicine was Dr. Edward C. Rosenow, Jr., Executive Director of the American College of Physicians. Dr. Rosenow's topic was "Continuing Education is a Community Problem."



The Knoxville Academy of Medicine is instituting a unique program of postgraduate education for its physicians. In the past, it has been the policy of each of the Knoxville Hospitals to have its own individual departmental meetings that attempted to maintain advanced educational programs. These meetings had fragmentary attendance and doctors whose time commitments had already been stressed beyond capacity would attend duplicated and sometimes redundant sessions in the area hospitals.

The Academy, in its monthly meetings, had been trying to present a single educational program that would suit the needs of all physicians at one setting. The frustrations of numerous duplicated medical meetings in hospitals and the impossible task of satisfying the cross section of physicians at the Academy meetings has encouraged the medical leadership to combine the departmental meetings of all hospitals into the Academy of Medicine meetings.

Under the new plan, the physician will have the opportunity of attending a combined departmental session in conjunction with the Academy of Medicine monthly meetings. This consolidation allows for better communications between physicians and it also provides for the opportunity to bring in national and state-wide experts

on a regular basis to the Knoxville area. The end product will be to keep Knoxville on the forefront of medical education.

The Joint Commission on Hospital Accreditation has thus far given us endorsement and approval to the program. "Kick-Off" for the program will be at the June meeting of the Academy.

NATIONAL NEWS

The Month in Washington (From Washington Office, AMA)

The House Ways and Means Committee approved legislation that would change the medicare program to permit prepaid closed-panel group practice care and would set ceilings on physicians' fees under medicare and medicaid.

The committee did not consider national health insurance proposals for legislative action this year.

A proposal for inclusion of chiropractic under medicare was rejected. However, a compromise provision would direct the Health, Education and Welfare Department to conduct a "very limited" study of chiropractic under medicare, utilizing the experiences under medicaid. Chiropractic now is a medicaid service in 15 states, being authorized for federal funds to the extent that it is legal in the state. Representatives of chiropractors lobbied intensively with committee members for the same treatment under medicare.

The committee also decided against inclusion of social security disabled beneficiaries under medicare. Instead, the proposal was referred to the Health Insurance Benefits Advisory Council for further study.

The House was expected to approve the committee's bill, which included a five per cent increase in cash social security benefits, without change. However, changes were expected in the Senate.

Provisions of the committee bill of major importance to physicians included:

—Health Maintenance Organization Option: Individuals eligible for both Part A and Part B medicare coverage would be able to choose to have their care provided by a health maintenance organization (a

prepaid group health or other capitation plan). The government would pay for such coverage on a capitation basis not to exceed 95% of the cost of medicare benefits provided to beneficiaries in the area not covered under the health maintenance organization.

—Experiments and Projects in Prospective Reimbursement and Incentives for Economy: The secretary of HEW would be required to develop experiments and demonstration projects designed to test various methods of making payment to providers of services on a prospective basis under medicare, medicaid and maternal and child health. In addition, the secretary would be authorized to conduct experiments with methods of payment or reimbursement designed to increase efficiency and economy, and with community-wide utilization review mechanisms.

—Limitation on Recognition of Physician Fee Increases: Charges determined to be reasonable under the present criteria in medicare, medicaid, and maternal and child health law would be limited by providing: (a) that for fiscal year 1971 medical charge levels recognized as prevailing may not be increased beyond the 75th percentile of actual charges in a locality during calendar year 1969; (b) that for fiscal year 1972 and thereafter the prevailing charge levels recognized for a locality may be increased, on the average, only to the extent justified by increases in the cost of production of medical services, levels of living and the earnings of other professional, managerial and technical personnel; and (c) that for medical supplies, equipment and services that, in the judgment of the Secretary, generally do not vary significantly in quality from one supplier to another, charges allowed as reasonable may not exceed the lowest levels at which such supplies, equipment and services are widely available in a locality.

—Payments for Services of Teaching Physicians: Medicare and medicaid would not pay for the services of teaching physicians unless other patients who have insurance or are able to pay are also charged for such services and the medicare deductibles and coinsurance amounts are regularly collected. Medicare attached pay-

ment would be authorized for services to hospital patients by staff of certain medical schools that now furnish these services without charge to the hospital.

—Termination of Payments to Providers Who Abuse the Medicare Program: The secretary of HEW would be given authority to terminate or suspend payment for services rendered by a supplier of health and medical services found to be guilty of program abuses. Program review teams would be established to furnish the secretary professional advice in carrying out this authority.

—Repeal of Medicaid Provision Requiring Expanded Programs: The requirement in present law that States have comprehensive medicaid programs by 1977 would be repealed.

—Prohibition of Reassignments: Medicare and medicaid payments to anyone other than a patient or his physician would be prohibited, unless the physician is required as a condition of his employment to turn over his fees to his employer or unless there is a contractual arrangement between the physician and the facility in which the services were provided under which the facility bills for all such services.

—Utilization Review in Medicaid: Require hospitals and skilled nursing homes participating in the medicaid and maternal and child health programs to have the same utilization review committee with the same functions as in the medicare program.

—Role of State Health Agencies in Medicaid: State health agencies would be required to perform certain functions under the medicaid and maternal and child health programs relating to the quality of the health care furnished to recipients.

—Physical Therapy Services Under Medicare: Under medicare's supplementary medical insurance program, beneficiaries would be covered for up to \$100 per calendar year of physical therapy services furnished by a licensed physical therapist in his office or the patient's home under a physician's prescription. Hospitals and extended care facilities could continue to provide covered physical therapy services to patients who have exhausted their days of hospital insurance coverage.

—Chiropractors' Services: HEW would

conduct a study on covering chiropractors' fees (on a very limited basis) under medicare, utilizing the experimental authority under the medicaid program. A report on the study, including the experience of other programs paying for chiropractors' services would be submitted to the Congress within 2 years.

* * *

The American Medical Association expressed opposition to a proposed oral contraceptive package insert addressed to users.

The Food and Drug Administration first proposed a package insert of about 700 words dealing with possible side-effects and potential dangers of taking birth control pills. When this raised widespread opposition, the FDA drastically revised the original draft, cutting it down to about 100 words. Main objections to the first draft were that it was too long and detailed to be addressed to a patient and that it raised a serious question about the relationship between doctor and patient.

After the FDA invited comments on the revised draft from interested parties, Dr. Ernest B. Howard, executive vice president of the AMA, responded that the AMA opposes any oral contraceptive package insert. He said that, "in the best interests of the patient and the practice of quality medicine," there should be no package insert addressed to users.

"... The requirement that information on the side-effects of a prescription drug be supplied directly to the patient is a dangerous departure from present practice," he said in a letter to the Health, Education and Welfare Department, of which FDA is a part. "It intrudes upon the patient-physician relationship and compromises individual medical evaluation. The proposed statement would lead to confusion and alarm among many patients and could result in harm to some.

"For these reasons, the American Medical Association is opposed to a package insert directed to patients for any prescription drug.

"The oral contraceptive is a prescription drug. It is the responsibility of the physician to inform his patients of the potential hazards of drugs he prescribes. In counseling on family planning, the physi-



Members of the TMA Legislative Committee in Washington—From left, Dr. Harold Neuenschwander and Congressman John Duncan of Knoxville; Dr. Oscar McCallum of Henderson and Congressman Ray Blanton; Dr. Robert Bomar of Nashville, Senator Howard Baker, Congressman William Anderson, Dr. John Williams of Mt. Pleasant and Dr. Robert Waters of Chattanooga.

cian has a further responsibility. He should provide information that will enable the patient to make an intelligent decision regarding the use of oral and other contraceptive methods."

"The proposed statement, in its simplistic approach to a complex situation, would confuse the patient who has already been informed of possible side-effects by her physician and who has received her physician's recommendation as to a desirable method of contraception for her . . .

"A stated purpose of the insert is to 'reinforce the efforts of the physician to inform the patient in a balanced fashion of the risks.' The physician has a duty to weigh the benefits against the possible risk in prescribing any drug for a patient, and the physician's advice to the patient in connection with the drug prescribed must be individualized for each patient. The balanced fashion theory cannot be a part of good therapeutic practice, which requires an individual judgment for each patient. Standardized information could harm some patients by limiting the value of the specific information given to them by their physicians.

"A package insert is an inappropriate and ineffective means of providing a patient with information regarding any prescription drug. The best way to inform patients effectively is through the physician. The best way to reinforce the physician's efforts to inform the patient is to provide him with unbiased, authoritative and up-to-date information. Our Council on Drugs has used the Journal of the American Medical Association for this purpose. Further, in a forthcoming book titled AMA Drug Evaluations,

we will supply the physician with comprehensive information on oral contraceptives as well as on other drugs. We would be pleased to join with the Food and Drug Administration and other concerned medical and scientific organizations in the preparation of any additional information, and to provide a means of placing it in the hands of all physicians . . ."

* * *

The American Medical Association supported two Senate bills (S. 3297 and S. 3652) that would require labeling of prescription drug containers except where the prescribing physician indicated otherwise.

"We would emphasize very strongly, however," Dr. John J. Curry, a member of the AMA Council on Drugs, testified at a Senate Health Subcommittee hearing, ". . . that both bills fall short of the recommendation of the American Medical Association. In urging your support of labeling legislation, we strongly recommend that the legislative requirement provide that the label contain the established name or trade name of the drug as written by the physician, or in the case of a combination drug, the established name of the active ingredients of the drug or its trade name as written by the physician, and the quantity and strength of the drug. Provision should of course be made that the label would not contain any or all of the foregoing information where the physician so indicates."

The AMA also supported S. 3096 and another provision of S. 3297 that would require a coding identification on each tablet, capsule or other final form of a medication.

The AMA did not take a position on a fourth bill (S. 3651) that would require in-

spection of drug manufacturing firms every six months, instead of the present two years. Dr. Curry said that he was concerned that medications he prescribed "are of maximum purity and manufactured under proper controls," but that he was not qualified to speak on the length of time between inspections.

MEDICAL NEWS IN TENNESSEE

Vanderbilt University School of Medicine

The Medical School and Aquinas Junior College will sponsor jointly a two-year medical training program beginning in September 1970. Inhalation therapy and radiologic technology are the two fields offered in the program.

Dr. Richard O. Cannon, Dean of the Division of Allied Health Education at Vanderbilt, which is organizing the affiliation, said students will take basic arts and science courses during their first year at Aquinas. The students will spend the second year at Vanderbilt studying the medical sciences and clinical procedures. The clinical training will take place primarily at Vanderbilt and Veterans Administration Hospitals and other area hospitals will take part in the training as the program develops.

Dr. Cannon stated, "We are most pleased to have this affiliation with Aquinas College. This will enable us to continue our plans to develop a program for the dental assistant, physician assistant and mental health assistant. We face a crisis in the lack of medical manpower, not only locally, but nationally. This program will help to alleviate the problem."

* * *

Following the death of Dr. William Hillman this spring, the third year class was anxious to make a meaningful contribution to Vanderbilt in his memory. As a physician, teacher, and leader, he left his imprint on the Vanderbilt Medical community, but most impressive to his students was his interest in teaching and his concern for medical students and their education. In his memory the J. William Hillman Award has been established, to be given annually to that house officer voted "Best Teacher" by the members of the third and fourth

year classes. The award honors not only Dr. Hillman but also the house staff, which carries the brunt of clinical teaching, and most specifically that house officer who the students feel does the best job of teaching. The award will be given at the conclusion of the final CPC on May 19. The last CPC of the year is traditionally given by the Chief Resident in Medicine, and this year will be conducted by Dr. Murray Smith. Mrs. Hillman will present the award. An engraved plaque with the name of each year's winner will be placed in the Medical Library.

University of Tennessee Medical Units

Dr. Samuel R. Bozeman has joined the University of Tennessee Medical Units as Assistant Dean of the College of Basic Medical Sciences. Dr. Bozeman succeeds Dr. James Sherman Davis, who died approximately a year ago.

Dr. Bozeman will hold the academic title of Professor of Microbiology, in addition to his administrative duties within the college.

Immediately prior to joining the medical units, Dr. Bozeman was in charge of acquisitions at Lederle Laboratories. He established Lederle's Clinical Laboratory Aides Department. For several years he directed all biological operations of the Pitman Moore Division of the Dow Chemical Company.

* * *

Dr. Lothar B. Kalinowsky, author and clinical Professor of Psychiatry at New York Medical College, gave the first Henry B. Brackin annual lecture in psychiatry at the University of Tennessee Medical Units. Dr. Kalinowsky's topic was "Various Biological Treatments in Schizophrenia."

* * *

Dr. F. A. Simeone, Professor of Surgical Sciences at Brown University, was visiting Professor in the Department of Surgery at the Medical Units on April 15. Dr. Simeone participated in Grand Rounds, visited the Surgical Research Laboratories and gave a lecture entitled "The Role of the Sympathetic Nervous System in Vascular Surgery Today."

Dr. Simeone was Professor of Surgery at Western Reserve before moving to Brown University to help institute the new program in medical sciences at that institution.



At the Gatlinburg Medical Assistants meeting—Dr. Tom Nesbitt with Mrs. Joan Hutchens of Winchester (left) Member of the Board, American Association of Medical Assistants and Mrs. Sue McJunkin of Knoxville, President of the Tennessee Chapter.

PERSONAL NEWS

Dr. Arthur J. Viehman has recently been appointed Medical Director of the Middle Tennessee Chest Disease Hospital in Nashville. Dr. Viehman succeeds **Dr. W. W. Hubbard**, who has been Medical Director at the Hospital since 1941. Dr. Viehman came from Birmingham, Alabama where he was Superintendent and Medical Director of the Jefferson Tuberculosis Sanatorium for 19 years.

Dr. Claude C. Snoddy, Tullahoma, has been elected to fill the one year term of County Medical Examiner for Coffee County, a post held previously by **Dr. Ralph Brickell**.

Dr. Sarah H. Sell, Nashville, presented a paper entitled "Psychological Sequelae to Bacterial Meningitis: Two Control Studies" at the American Pediatric Society meeting in Atlantic City, New Jersey on May 2. Dr. Sell, is the recipient of a National Institute of Health grant from the National Institute of Allergy and Infectious Diseases.

Dr. Jerry T. Francisco, Memphis, has been elected to a three year term on the executive committee of the National Association of Medical Examiners at the Association's Annual Meeting held recently in Chicago.

Dr. Crawford Adams, Nashville, gave the annual Oslec Society Lecture at Baylor Medical

School on May 1. The title of his lecture was "Andreas Vesalius and Medical Science." Also, during the month of April, Dr. Adams lectured to the physicians at Air Force Bases located in Germany and Norway.

Dr. Benjamin F. Byrd, Jr., Nashville, was elected Councilor-at-Large of the Southeastern Surgical Congress during its 38th Annual Assembly in Atlanta.

Dr. Gerald M. Fenichel, Professor and Chairman of the Department of Neurology at Vanderbilt University Medical School, presented a paper on "Development Learning and Neurologic Techniques" before the American Academy of Pediatrics in Washington, D. C.

Dr. Robert Waters, Chattanooga, was a member of a professional panel that presented an educational program on drug abuse to the high school students in the Chattanooga area.

Dr. Nat Winston, Nashville, has been named State-wide Chairman for the Brock for Senate Committee. Dr. Winston is President of the American Psychiatric Hospitals, Inc., a National chain of private psychiatric hospitals.

Dr. Stewart Fish, Memphis, authored an article on Rubella entitled "The Expectant Mother" in the April issue of Redbook Magazine. Dr. Fish is Chairman of the Department of Obstetrics and Gynecology at the University of Tennessee College of Medicine.

Dr. Robert Allen, Memphis, and **Dr. Sarah Sell**, Nashville, were speakers at the recent 11th Annual Cardiac Nursing Institute which was held at Baptist Hospital in Nashville.

Dr. Melvin W. Deweese, Memphis, is spending the month of June in Bangalore, India, performing eye surgery for the medically deprived people in that area. Dr. Deweese will be assisted by his twenty year old son Bill.

The program of the Convocation for the American College of Physicians, held in Philadelphia in April 1970, listed the following Tennessee physicians as newly elected fellows: Doctors **Charles V. Dowling**, **Randolph M. McCloy**, **Walter L. Norton** and **Samuel E. Pitner** of Memphis; Doctors **Richard A. Obenour** and **Bergein F. Overholt** of Knoxville; Doctors **Robert H. Alford**, **Ernest W. Ewers**, **Jay S. Goodman**, **Alan L. Graber**, and **Alexander C. McLeod**, of Nashville, and **Dr. James E. Hampton**, Clarksville.

ANNOUNCEMENTS

Calendar of Meetings, 1970

State

Oct. 19-20

Tennessee Valley Medical Assembly, 18th Annual, Read House, Chattanooga

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National

June 21-25	American Medical Association, Annual Convention, Chicago
Aug. 16-18	American Academy of Physical Medicine and Rehabilitation, New York Hilton, New York
Sept. 10-12	American Association of Obstetricians and Gynecologists, Homestead, Hot Springs, Va.
Sept. 14-17	American Hospital Association, Houston
Sept. 19-20	American Association of Ophthalmology, Las Vegas
Sept. 20-23	American Association of Medical Clinics, St. Francis, San Francisco
Sept. 25-Oct. 1	American Academy of General Practice, San Francisco
Sept. 30-Oct. 1	AMA Congress on Occupational Health, Century Plaza Hotel, Los Angeles
Oct. 5-9	American Academy of Ophthalmology and Otolaryngology, International Hotel, Las Vegas
Oct. 12-16	American College of Surgeons, Conrad Hilton Hotel, Chicago
Oct. 17-22	American Academy of Pediatrics, San Francisco Hilton, San Francisco
Oct. 25-29	American Association of Blood Banks, San Francisco Hilton, San Francisco
Oct. 25-30	American College of Chest Physicians, Century Plaza Hotel, Los Angeles
Oct. 29-Nov. 2	Association of American Medical Colleges, Biltmore Hotel, Los Angeles

Continuing Education Symposium on Black Lung

A Continuing Education course on "Black Lung" will be held July 16 and 17, 1970 at the University of Tennessee in Knoxville. The sponsors of the Conference are the Tennessee Mid-South Regional Medical Program, the Tennessee Tuberculosis and Respiratory Diseases Association, the Knoxville Academy of Medicine,

and the Division of Continuing Education, Vanderbilt School of Medicine.

Stress will be placed on basic factual information on which there is substantial agreement so that practicing physicians in the region may derive an increased understanding of Occupational Pneumoconiosis as it affects their coal miner patients. Formal presentations and ample discussion and question periods will prove useful and stimulating, and will enhance understanding of Occupational Pneumoconiosis of coalworkers, and aid in the effort to eliminate this dreaded disease in our region.

This meeting is particularly timely in view of the fact that on January 1, 1970, the Federal Coal Mine Health and Safety Act of 1969 became a law. Practicing physicians as well as Public Health and Social Security representatives will have distinct responsibilities in the application of this law. For physicians particularly, this Symposium offers an opportunity to improve ability to make an accurate diagnosis of Occupational Pneumoconiosis of coalworkers, and to establish clearcut determination of disability. For all attending this meeting, the sponsors hope to provide as much information as possible about the health and safety features of the new law and the relationship between federal and recently updated state workmen's compensation laws.

The goal of this Symposium is to provide basic scientific and legal facts in the belief that through the effective application of this knowledge a beginning may be made toward the eventual elimination of coalworker's Pneumoconiosis, which, in the final analysis, is the intended purpose of the new Federal Act.

This Conference is acceptable for nine prescribed hours of continuing education by the American Academy of General Practice.

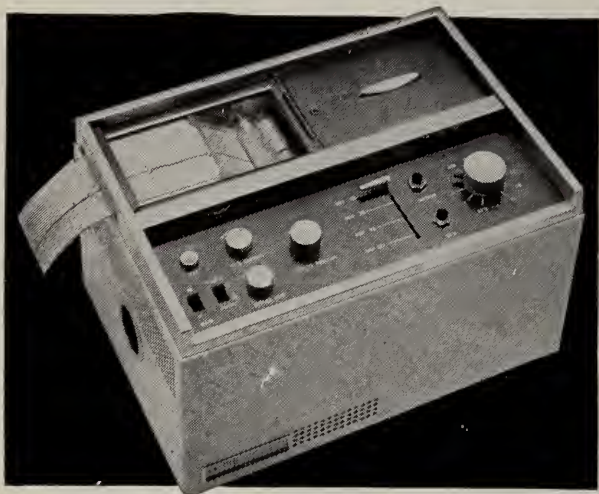
National Conference on Cancer Therapy to Be Held

The Ninth National Conference on Therapies for Advanced Cancers will be held at the University of Wisconsin Postgraduate Center on August 20-22, 1970. The sponsor of the program is the Division of Clinical Oncology at the University of Wisconsin.

For additional information regarding registration, please write the Program Coordinator: R. J. Samp, M.D., University Hospital, Madison, Wisconsin 53706.



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Precautions: As with other thyroid preparations, an overdosage may cause diarrhea or cramps, nervousness, tremors, tachycardia, vomiting and continued weight loss. These effects may begin after four or five days or may not become apparent for one to three weeks. Patients receiving the drug should be observed closely for signs of thyrotoxicosis. If indications of overdosage appear, discontinue medication for 2-6 days, then resume at a lower dosage level. In patients with diabetes mellitus, careful observations should be made for changes in insulin or other antidiabetic drug dosage requirements. If hypothyroidism is accompanied by adrenal insufficiency, as Addison's Disease (chronic subcortical insufficiency), Simmonds's Disease (panhypopituitarism) or Cushing's syndrome (hyperadrenalism), these dysfunctions must be corrected prior to and during SYNTHROID (sodium levothyroxine) administration. The drug should be administered with caution to patients with cardiovascular disease; development of chest pains or other aggravations of cardiovascular disease requires a reduction in dosage.

Contraindications: Thyrotoxicosis, acute myocardial infarction.

Side effects: The effects of SYNTHROID (sodium levothyroxine) therapy are slow in being manifested. Side effects, when they do occur, are secondary to increased rates of body metabolism: sweating, heart palpitations with or without pain, leg cramps, and weight loss. Diarrhea, vomiting, and nervousness have also been observed. Myxedematous patients with heart disease have died from abrupt increases in dosage of thyroid drugs. Careful observation of the patient during the beginning of any thyroid therapy will alert the physician to any untoward effects.

In most cases with side effects, a reduction in dosage followed by a more gradual adjustment upward will result in a more accurate indication of the patient's dosage requirements without the appearance of side effects.

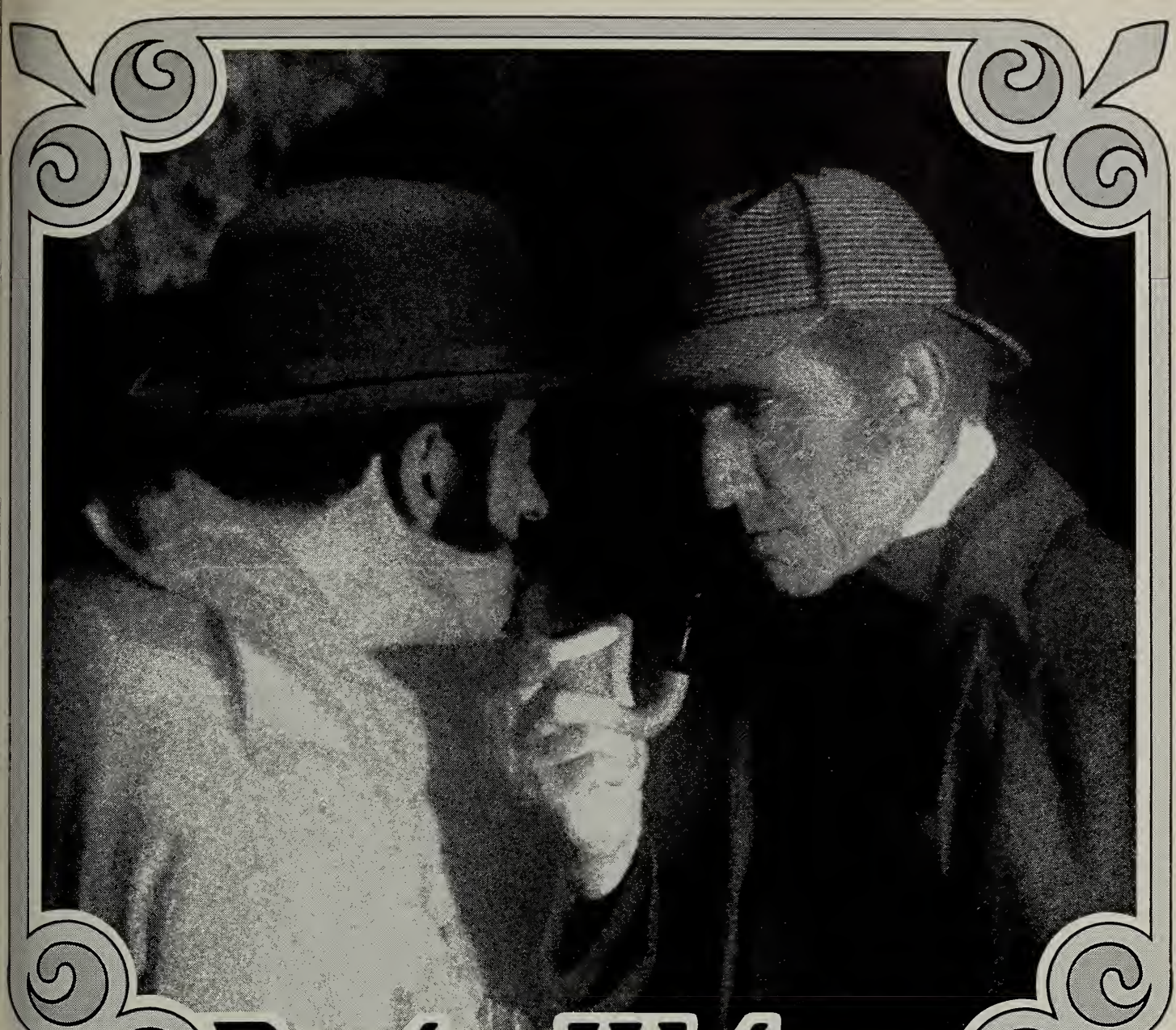
Dosage and Administration: The activity of a 0.1 mg. SYNTHROID (sodium levothyroxine) **TABLET** is equivalent to approximately one grain thyroid; U.S.P. Administer SYNTHROID tablets as a single daily dose, preferably after breakfast. In hypothyroidism without myxedema, the usual initial adult dose is 0.1 mg. daily, and may be increased by 0.1 mg. every 30 days until proper metabolic balance is attained. Clinical evaluation should be made monthly and PBI measurements about every 90 days. Final maintenance dosage will usually range from 0.2-0.4 mg. daily. In adult myxedema, starting dose should be 0.025 mg. daily. The dose may be increased to 0.05 mg. after two weeks and to 0.1 mg. at the end of a second two weeks. The daily dose may be further increased at two-month intervals by 0.1 mg. until the optimum maintenance dose is reached (0.1-1.0 mg. daily).

Supplied: Tablets: 0.025 mg., 0.05 mg., 0.1 mg., 0.15 mg., 0.2 mg., 0.3 mg., 0.5 mg., scored and color-coded, in bottles of 100 and 500. Injection: 500 mcg. lyophilized active ingredient and 10 mg. of Mannitol, N.F., in 10 ml. single-dose vial, with 5 ml. vial of Sodium Chloride Injection, U.S.P., as a diluent.

SYNTHROID (sodium levothyroxine) **INJECTION** may be administered intravenously utilizing 200-400 mcg. of a solution containing 100 mcg. per ml. If significant improvement is not shown the following day, a repeat injection of 100-200 mcg. may be given.



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Doctor Watson exposes a double agent

Fog on the Embankment. Two figures emerge into silhouette against a haloed street lamp. The flare of a match reveals the profile of Sherlock Holmes. As he lights his calabash, his companion speaks:

"By Jove, Holmes, that amazing intuition of yours has proved right again. What we're looking for is a single entity. I thought we were dealing with several others—even twins. But now—I'd say we've uncovered a double agent."

"Tell me more, Watson, and be quick about it!"

(Watson withdraws a folded paper from inside his greatcoat, and reads aloud from it):

"The key to the whole cypher is SYNTHROID (sodium levothyroxine)"...

"Shhh! Watson, not so loud! You'll alert our quarry."

(Watson continues): "A single entity that serves two functions."

"A master stroke, Watson."

"Follow along, Holmes. In the neighborhood of 95% of the circulating thyroid hormone is levothyroxine— T_4 as you call it. T_4 is bound to thyroxine-binding proteins in the serum. It becomes available only gradually to tissue cells—as free thyroxine."

"Is that why there's such a smooth, predictable response, Watson?"

"Quite! With agent T_4 , SYNTHROID, the chances of a precipitous rise in metabolic rate are lessened."

"But how does 'free' thyroxine fit into the picture?"

"Well, Holmes, you might call it the tissue thyroid hormone—because 'free' thyroxine (that is, thyroxine not bound to protein) is active at the tissue level. It is gradually released from thyroxine-binding proteins. Each daily dose of SYNTHROID is mostly bound to thyroid-binding proteins, and slowly released as 'free' thyroxine—the form in which it is metabolically active."

"Magnificent, Watson! So protein-bound thyroxine is the major form of circulating thyroid hormone, and it is released as 'free' thyroxine. And that's why SYNTHROID is able to simulate the normal process so artfully. Q.E.D."

"Not so fast, Holmes. SYNTHROID works for the *physician*, too. Because its dosage is more precisely controllable, and because response is so smooth and predictable, the *doctor* gets fewer phone calls in the wee hours from agitated patients. Both parties get more sleep!"

"Comforting, my dear doctor, to know that SYNTHROID, the 'single agent,' cleverly does the job of two."

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John H. Burkhart, M.D., 3000 Broadway, N.E., Knoxville, 37917 (1972)

W. O. Vaughan, M.D., 2103 Hayes Street, Nashville, 37203 (1971)

Tom E. Nesbitt, M.D., 1921 Hayes Street, Nashville, 37203 (1972)

ALTERNATE DELEGATES

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Researches in recent years have shown that prognosis in this disease is quite good if it is well localized and treated early. It has now moved into the column of "curable" disease.

New Concepts in the Treatment of Hodgkin's Disease*

WILLIAM L. CALDWELL, M.D., and GUSTAVO S. MONTANA, M.D., Nashville, Tenn.

With proper treatment Hodgkin's disease is curable, certainly so in the majority of patients with localized, early-stage disease, but also true in a significant percent of patients with more advanced disease if restricted to lymph nodes. An optimistic treatment policy is therefore indicated!

Any clinically enlarged lymph node which persists for more than two to three weeks (and for which there is no apparent explanation) should be removed for histopathologic evaluation. Removal of an entire node the largest node which can be excised, is advised. The material should be

resembles granulomatous disease, infectious mononucleosis, the reactive hyperplasia infrequently seen in patients taking anticonvulsant drugs, and other conditions including benign processes or other lymphomas^{1,2}. Culture of removed lymph nodes is recommended to reduce the frequency of incorrect diagnosis.

Reed-Sternberg cells must be seen to establish the diagnosis of Hodgkin's disease. These large cells with multilobed nuclei and huge inclusion-like nucleoli probably are an expression of the host's attempt to counteract the neoplasm. The Jackson-

Table I

Rye Conference Modification of the Lukes' Pathologic Classification of Hodgkin's Disease⁴⁻⁸

Classification	Incidence	Five Year Survival (all cases)
Lymphocytic predominance	5-20%	50-90%
Nodular sclerosis	35-60%	50-65%
Mixed cell type	35-50%	5-35%
Lymphocytic depletion	5-15%	0-35%

reviewed by at least two competent pathologists and, if possible, it should also be seen, even if interpreted as benign, by a pathologist who specializes in lymph node pathology. All too frequently (10% of our cases) a patient with early stage lymphoma will have the node obtained for biopsy interpreted as lymphoid hyperplasia, reactive hyperplasia or some other process. It is only with progression of the disease that its true nature then becomes appreciated. False positives also occur occasionally, since the histologic pattern of Hodgkin's disease

Parker pathologic classification (paragranuloma, granuloma, sarcoma) is being replaced by the recently modified classification of Lukes and associates³ which includes four histologic types as indicated in table 1.

In the lymphocytic predominance group there are few Reed-Sternberg cells and in the lymphocytic depletion group they are seen frequently. Prognosis is best with lymphocytic predominance, but is favorable also for the nodular sclerosing type, particularly in females. The prognosis is least satisfactory for those showing a lymphocytic depletion pattern.

When the diagnosis has been established, pretreatment assessment of the extent of

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Table 2
Rye Conference Staging of Hodgkin's Disease^{7,9,10}

	<i>Incidence</i>	<i>Five Year Survival</i>
I Disease limited to 1 anatomic region or to 2 contiguous anatomic regions on the same side of the diaphragm.	30%	80%
II Disease in more than 2 anatomic regions or in 2 non-contiguous regions on the same side of the diaphragm.	25%	50%
III Disease on both sides of the diaphragm, but not extending beyond the involvement of lymph nodes, spleen, and/or Waldeyer's ring.	25%	30%
IV Involvement of bone marrow, lung parenchyma, pleura, liver, bone, skin, kidneys, G.I. tract, or any tissue or organ in addition to lymph nodes, spleen, or Waldeyer's ring.	20%	10%

disease begins. Adequate evaluation before treatment has played a major role in improving the prognosis in this disease, since cure can be anticipated only in patients having all of their disease treated.

Staging, described in table 2, is important for the stage of disease will influence the type and extent of treatment initiated. Patients with signs or symptoms of systemic disease (fever, night sweats, or generalized pruritus) are subclassified B, those without, A; for example, a patient with disease above and below the diaphragm with fever and night sweats is classified as having Stage III B disease. The presence of signs or symptoms makes the likelihood of advanced disease high and within a given stage lowers the survival probability sharply, perhaps by 50% or more. Staging may be modified in the near future, with the major change being in the Stage IV group; some patients in this present category have a reasonably favorable prognosis.¹¹ Such special cases include those with a single site of epidural involvement, a single subcutaneous deposit, localized osseous involvement (as demonstrated either by x-rays or a bone scan), and isolated pulmonary parenchymal disease.

A minimal "work up" should include the items listed in table 3. In other patients further evaluations, as noted in table 4, are necessary. Radiologic studies should include PA and lateral chest x-rays; tomograms of the hila and lungs are indicated if there is

Table 3
"Work Up" For Hodgkin's Disease

Minimum:

History and physical exam
Review of lymph node histopathology
X-rays
Chest—tomograms if hilar adenopathy
Excretory Urogram
Lymphangiogram
Bone survey
Biochemistry
Alkaline phosphatase
BSP
Blood
Hematocrit
WBC
Differential
Platelet

Table 4
"Work Up" For Hodgkin's Disease (Contd.)

Optional or on indication:

BUN—if ureteral obstruction.
Inferior vena cavagram—if status of the right paraortic lymph nodes uncertain.
Liver scan—rarely helpful for only beneficial if positive and even then false positives have been seen.
Liver biopsy—only helpful if positive for is a small random sampling.
Bone scan—occasionally a localized osseous focus is demonstrated.
Laparotomy (for assessment, including liver biopsy, and splenectomy)—if splenomegaly, question of liver involvement, or equivocal lymphangiogram in patients without clinical evidence of Stage IV disease.
Bone biopsy—if clinical Stage II B or III disease.

evidence of mediastinal hilar or pulmonary parenchymal disease on the plain films. There are too many instances of false negative or false positive excretory urograms to depend on this examination alone to evaluate the retroperitoneal lymph nodes and, of course, the pelvic lymph nodes cannot be assessed well by this procedure either. Therefore, in most cases with disease apparently confined to lymph nodes, a bilateral foot lymphangiogram is performed. Appearance, position, and size of the nodes influence the radiographic interpretation.⁴ Several representative lymphangiograms are shown in figures 1 and 2. Approximately 30 to 35% of patients with apparent clinical Stage I or II disease will

be shown to have a more advanced stage disease by lymphangiography. An excretory urogram after lymphangiogram occasionally helps relate the kidneys to involved lymph nodes; rarely involvement of the renal parenchyma is shown. The celiac axis area, particularly on the right, may be demonstrated by an inferior vena cavagram; the lymph nodes in this region often do not fill well on lymphangiography. Both the lymphangiogram and cavagram can be done as out patient procedures. Occasionally asymptomatic involvement of bones will be seen on a bone survey and this is an examination well worth doing in all patients being considered for curative therapy.¹²

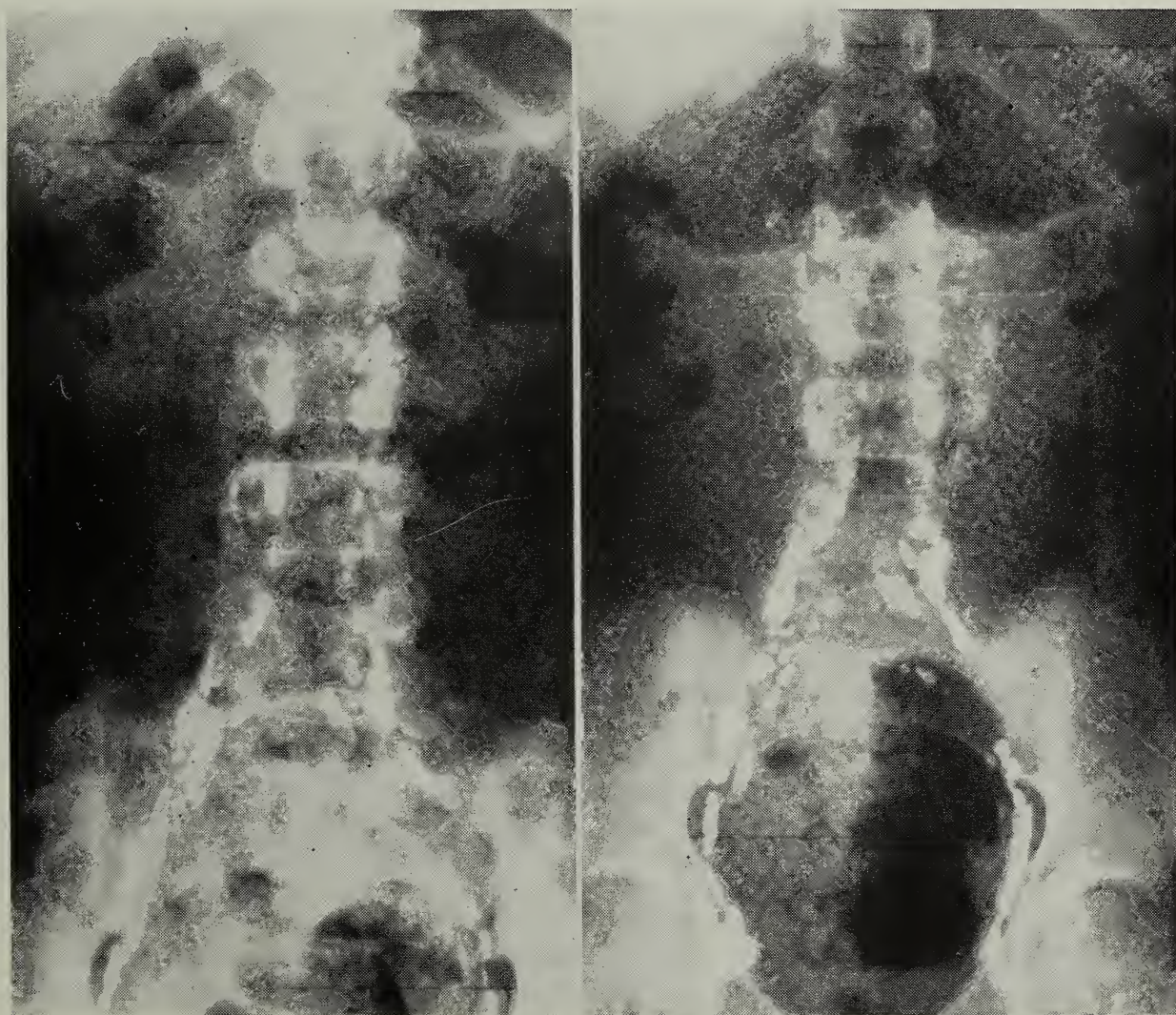


FIG. 1(A) A 24 hour lymphangiogram film showing numerous opacified lymph nodes, all of which are considered of normal appearance. An inferior vena cavagram (not shown) was normal as well. (B) A repeat lymphangio-

gram almost a year later shows a markedly altered appearance of the paraortic lymph nodes. The nodes are foamy and enlarged. Biopsy confirmed the presence of Hodgkin's disease.

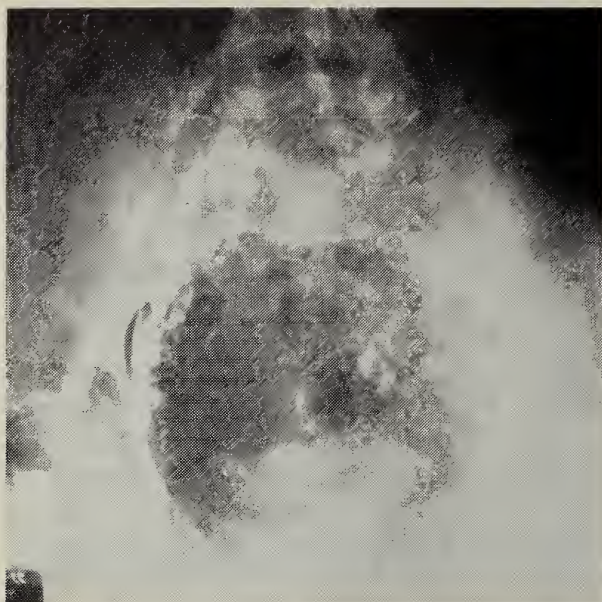


FIG. 2 A lymphangiogram on a 24 year old man with huge nodes in the left groin. Biopsy showed Hodgkin's disease. A large complex of irregularly filled nodes is shown. There is contrast material in the bladder from an excretory urogram.

Hematologic studies as shown in table 3, are routine. Depression of the peripheral counts may indicate a bad prognosis, since it usually means there is Stage IV disease with bone marrow involvement. Bone marrow biopsy (a wedge of iliac crest or a core obtained with a large gauge biopsy needle) is rarely positive unless there is clinical Stage II B, III A, or III B disease; a positive biopsy, of course, changes the staging to Stage IV. (Table 4) In the Stanford experience there have been no positive bone marrow biopsies in patients without involvement of the retroperitoneal nodes.¹¹

Biochemical studies are obtained primarily to evaluate liver function; alkaline phosphatase and sulfobromophthalein determinations have proven the most sensitive and reliable indicators of hepatic dysfunction. Abnormal liver function tests may indicate hepatic involvement with lymphoma; it is necessary to obtain either a needle biopsy or an open biopsy of the liver to confirm this, however.

In some institutions exploratory laparotomies are now being done frequently to more adequately assess the retroperitoneal lymph nodes (of which a biopsy is made), the liver (biopsy of suspicious nodules or a wedge biopsy is obtained), and the spleen

(which is ordinarily removed, even if apparently uninvolved.)¹³ The splenic pedicle is identified with clips and any area of suspected residual disease in the splenic fossa also is clipped. Unsuspected involvement of the spleen may be found in approximately one-fourth of explored patients and only three-fourths of patients with splenomegaly will have splenic disease. Radiotherapy is simplified greatly after splenectomy. Liver involvement is rarely, if ever, seen in the absence of splenic disease.¹³

If pretreatment evaluation establishes that the disease is confined to lymph nodes (Stage I through III) and the general condition of the patient is satisfactory then the possibility for cure exists and treatment which is potentially curative should be initiated. Cytotoxic chemotherapy, as presently developed and utilized, is not curative and therefore is contra-indicated in potentially curative patients, at least until after all planned irradiation is concluded. Selected patients with Stage IV disease (indicated earlier under staging) also may be treated aggressively with radiotherapy. An optimistic approach to the treatment of this disease has proven beneficial and those involved with the management of these patients need to realize that even patients in the advanced-stage may be cured by appropriate radiotherapy. Randomized clinical trials, in progress, are trying to establish the benefit of local treatment (treatment only of lymph nodes areas which have been shown on pretreatment evaluation to be involved) versus extended field therapy (treatment of the involved area plus adjacent, apparently uninvolved areas). From present evaluations in patients with Stage I A and II A disease there is apparently no advantage to the use of extended field therapy, even though theoretically one might reason that this would be the case¹⁰; however, there is no question that extended field therapy is beneficial for patients with Stage II B, III A, and III B disease¹⁰; Stage I B disease is infrequently seen and guidelines for its management is unclear presently.

Extended fields which are commonly used are shown in figures 3, 4 and 5. The shaped blocks reduce morbidity by shielding clinically uninvolved structures. If the

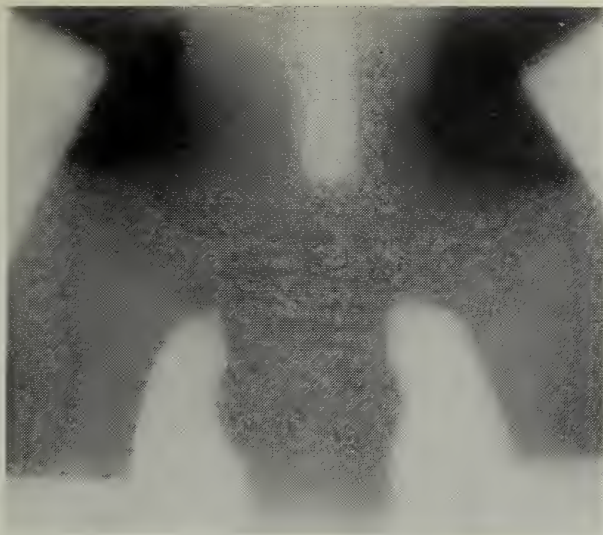


FIG. 3 A treatment portal film demonstrating the "mantle" field. The mediastinum and each axillary, infraclavicular, supraclavicular, and cervical region are irradiated. The midline block is used on posterior fields to reduce the dose to the cervical spinal cord.

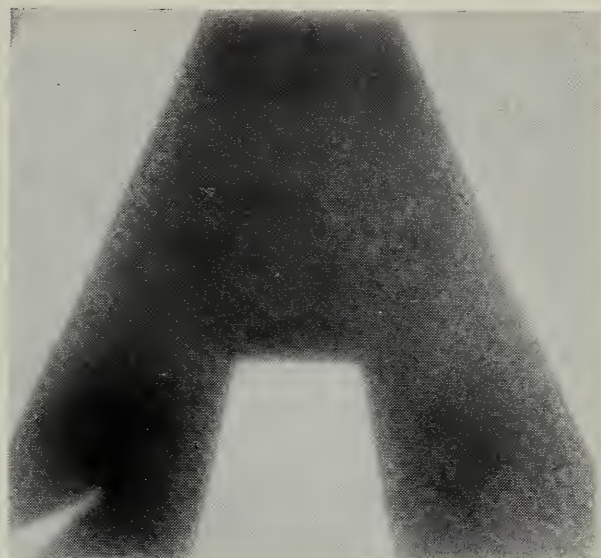


FIG. 5 The pelvic and inguinal lymph nodes are ordinarily treated with a port similar to this. The testes can be shielded but no method for safely blocking the ovaries is in general use.



FIG. 4 A typical paraortic and spleen treatment portal. Unfortunately it is necessary to include a portion of the upper pole of the left kidney in this portal.

patient has had a splenectomy, the splenic fossa is not irradiated.

With modern treatment methods cure is anticipated in approximately 80% of pa-

tients with Stage I disease, 50% with Stage II disease, 30% with Stage III disease, and as many as 10% of patients with Stage IV disease. This necessitates aggressive irradiation. The prognosis will be somewhat better in patients without constitutional signs and symptoms (substage A) than in those with such signs and symptoms (substage B).

From July 1, 1966 until December 31, 1969, 83 patients with Hodgkin's disease have been seen and treated for Hodgkin's disease at the Vanderbilt University Hospital radiotherapy facility. Forty-seven patients have received no previous treatment (10 of these had Stage IV disease). Twenty patients included in the series were from the Nashville Veterans Administration Hospital and for some reason the majority of these patients had either received previous treatment (16) or presented with advanced stage disease (one Stage III A and three Stage IV). The referral pattern at this hospital and perhaps the general unavailability of out patient services to these individuals might have accounted for the striking difference in the stage distribution of these patients. Table 5 shows the results of treatment to date. The follow up time is short but the numbers are sufficiently large to be of interest perhaps.

Complications of extended field radiotherapy, used in virtually all patients

Table 5

Result of Treatment of Hodgkin's Disease (7/66-12/69)

Previously Untreated

Stage	Number	Dead	Alive With Disease	Less than 1 year	Alive Without Disease		
					1-2 years	2-3 years	More than 3 years
IA, IIA	24	2		7	8	3	4
IIB	1					1	
IIIA	7	1		3	1	2	
IIIB	5	2	1		1	1	
IV	10	6	1	2			1
	47	11	2		34		

Previously Treated

Stage	Number	Dead	Alive With Disease	Less than 1 year	Alive Without Disease		
					1-2 years	2-3 years	More than 3 years
IA, IIA	2			2			
IIIA	9	2	1	3		1	2
IIIB	6	5	1				
IV	19	12	7				
	36	19	9		8		

treated with curative intent, were seen frequently, but these complications were usually short lived and were controlled with appropriate measures. Depression of the peripheral blood counts was seen in the majority of patients treated with extended fields (Figs. 3, 4, and 5), but within 3 months of conclusion of treatment these counts were almost always back to normal; if not, this usually indicated that there was bone marrow involvement. It was a pattern also seen in some who had chemotherapy before extended field irradiation.

Irradiation pneumonitis also was seen in patients with mediastinal and hilar irradiation, but the symptoms (dry cough, fever—usually less than 102° F., and shortness of breath) of this self-limited process were alleviated by administration of corticoids. Ordinarily treatment was initiated with 20 to 30 mg. of prednisone daily in divided doses; after 4 to 6 weeks this dose was gradually tapered off and within three to four months the patients were off prednisone. During the period of cortisone administration the patients were given 300 mg. of Isoniazid daily to prevent clinically latent tuberculosis from becoming manifest.

Irradiation pericarditis has been reported in as many as 10% of patients with mediastinal treatment. The frequency is somewhat greater in those with mediastinal in-

volvement prior to irradiation than in patients treated electively. Approximately half of the patients with x-ray evidence of pericarditis will be asymptomatic and there will be subsidence of signs and symptoms without therapy.¹⁴ Corticosteroids and diuretics may benefit some patients. Occasionally a complete pericardiectomy is necessary to prevent the serious consequences of symptomatic constrictive pericarditis. In this series there have been 2 cases of asymptomatic pericarditis one of which subsided spontaneously after three to four months without treatment. The other patient is being treated with diuretics only.

During treatment and in the immediate post-treatment period there was moderate skin reaction in the axilla, supraclavicular, and cervical region. Irradiation-induced esophagitis and laryngitis was seen in many patients, but the symptomatology was ordinarily minor and of short duration. During pelvic field irradiation, mild diarrhea was usually induced, but was readily controlled with medication (Lomotil 5.0 mg. q4hr. p.r.n. diarrhea). Radiation myelitis is rarely seen and with proper attention to irradiation details this problem should not arise; treatment is supportive. One patient in this series did develop radiation myelitis which persisted until he died with disseminated

neural toxoplasmosis. Perhaps he could have resisted this problem, had his general health not been compromised by the consequences of lower thoracic cord myelitis.

Conclusions:

The evidence now in hand indicates that Hodgkin's disease is potentially curable, even in patients with extensive lymph node involvement (Stage III) and selected patients with Stage IV disease. An optimistic approach toward treatment of this disease is therefore indicated as the burden of proof now lies on those with a pessimistic or nihilistic approach.

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The authors' cases illustrate the glandular abnormalities which may be very characteristic of systemic sarcoidosis.

Sialopathies in Sarcoidosis*

MARVIN A. SINGLETON, M.D., and JOSE C. GROS, M.D.,† Memphis, Tenn.

Since 1888, when Johann von Mikulicz¹ described chronic enlargement of the lacrimal and salivary glands at a meeting of the Society of Scientific Medicine in Konigsburg, there have been numerous contributions in medical literature on chronic non-neoplastic enlargements of the major salivary glands. Mikulicz thought this enlargement to be due to a low grade infective process hitherto undescribed. Later, Howard² distinguished between the parotid involvement in pseudoleukemia and true lymphatic leukemia, but this simple classification failed to take into account all of the causes of lacrimal and salivary gland swellings. In 1927, Schaffer and Jacobson³ attempted to classify cases into Mikulicz's disease and Mikulicz's syndrome; this last entity representing a disorder secondary to a general systemic disease.

In recent years, Blatt⁴ has described a heterogenous disease complex which includes recurrent pyogenic parotitis, the sicca syndrome of Gougerot-Sjogren and Mikulicz's disease. He believes this complex represents stages and/or variations of systemic disease in the family of connective tissue disorders, and considers it to be a specific entity which is benign, should be called benign lymphosialadenopathy—a chronic nonobstructive sialodochiectasis. This group is not to be confused with the salivary disorders appearing in the beginning or during the course of a malignant systemic disease.

Recently, we had the opportunity to study very carefully 2 clinically different cases of sialopathy, in which sarcoidosis was the presumptive diagnosis. We believe that some interesting points in these cases will be helpful to the general understanding of

the subject of chronic bilateral enlargement of the salivary glands.

Case 1. A 23 year old Negro woman was admitted to the City of Memphis Hospitals Sept. 16, 1968, with a chief complaint of sudden painless, bilateral swelling of the lacrimal glands, followed by bilateral enlargement of the parotid glands one day later. No fever or chills accompanied the swellings. Prior to admission she had some loss of weight and slight unproductive cough. No allergies were known.

Physical examination revealed a well developed, well nourished, woman, somewhat lethargic (Fig. 1). She had bilateral painless



FIG. 1 (Case 1) Enlargement bilaterally of the lacrimal and parotid glands.

swelling of the parotid and lacrimal glands. Submandibular and sublingual glands were within normal limits. Salivary flow was transparent and thin. Dryness of the eyes was pres-

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*Presented at the meeting of the Tennessee Academy of Ophthalmology and Otolaryngology, April 10, 1969, Gatlinburg, Tenn.

ent. Oral examination was negative. Remaining examination was within normal limits.

The sialogram was within normal limits, and no sialectasis present. Aspiration biopsy showed chronic nodular granulomatous disease of the parotid gland, methenamine silver stain was negative for fungi. AFB stains were negative. Chest x-ray showed bilateral hilar adenopathy and scattered honeycomb disease in the lung fields, (Fig. 2). The hands and feet showed no evidence of abnormality.

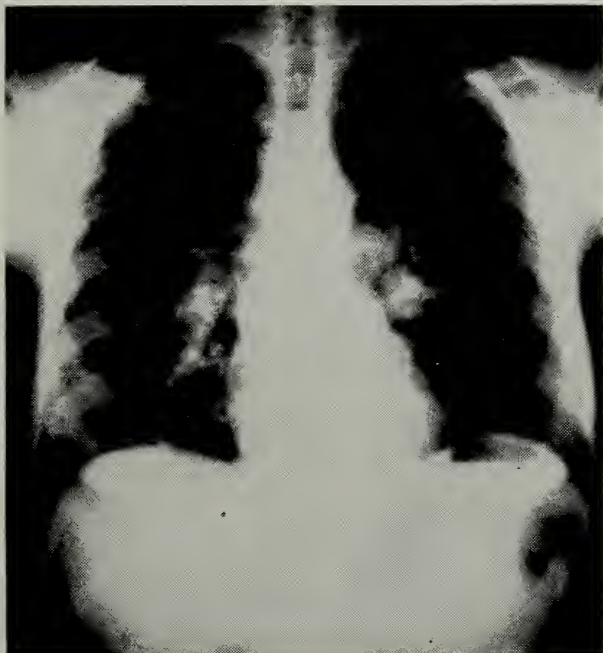


FIG. 2 (Case 1) Bilateral hilar adenopathy consistent with sarcoidosis.

Laboratory tests: Protein electrophoresis showed increased globulin fraction, 31.3% gamma. Total protein was 8.2 gm with A/G ration .94. WBC count was 3,650 with an eosinophilia of 7%. VDRL, R.A. factor, L.E. cell, serum calcium, C-reactive protein, Coomb's test indirect and direct, PPD 1st and 2nd strengths skin tests were all negative. Urinalysis was within normal limits with exception of 2 plus calcium oxalate crystals. Culture of saliva showed *Streptococcus viridans* and *Diplococcus pneumoniae*.

The patient was placed on 5 mg. prednisolone tid and responded well with decrease in size of the glandular swelling and return of lacrimation and salivation. The patient's lethargy disappeared after 2 weeks treatment. She was taken off all steroids after 4 weeks of treatment and has remained asymptomatic to date.

Case 2. This 58 year old Negro woman was admitted to City of Memphis Hospitals on Dec. 17, 1968, with the chief complaint of dryness of the mouth for about 10 days prior to admission. This was preceded by a 2 to 3 week

history of fever, chilliness, and copious sputum. About the time of admission the patient also noticed dryness of the eyes with painless swelling of both sides of the face.

Physical examination revealed a well developed, well nourished, pleasant woman in no distress with bilateral nontender swelling of the parotid and submandibular glands.

The ductal orifices appeared normal with thick, clear saliva expressed in minute quantities. The oral mucosa was extremely dry. No generalized adenopathy was present. Otherwise the general examination was within normal limits. The patient had a slight persistent low grade fever of 100°/F. Eye examination revealed a 20-20 vision with keratoconjunctivitis sicca.

Sialogram revealed no sialectasis but generalized enlargement of the gland. The Liver scan showed no hepatomegaly without "cold spots." Chest x-ray revealed bilateral hilar adenopathy without significant infiltrates, (Fig. 3). X-rays of the hands were normal.

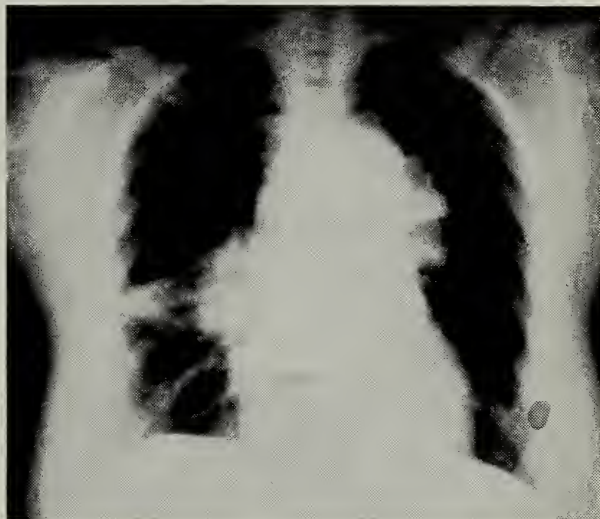


FIG. 3 (Case 2) Bilateral hilar adenopathy consistent with sarcoidosis.

Aspiration biopsy of the left parotid revealed only a chronic sialadenitis, fibrosis and glandular atrophy. Biopsy of the lung, hilar node, pleura, diaphragm and liver after thoracotomy in the West Tennessee Chest Hospital revealed granulomatous disease with slight necrosis. Biopsy of the mucosa of plate looking for the minor salivary gland defects revealed chronic sialadenitis. No AFB or fungi on special stains or cultures were identified. The WBC cells were 5,050 with 8% eosinophilia. Sputa were negative for AFB x 15.

Laboratory tests revealed protein electrophoresis with increased globulin fraction, 25.1% gamma. Total protein was 8 gm with A/G ratio of 3.5/3.3. VDRL, R.A. factor, L.E. cells, serum calcium complement fixation tests for histoplasmosis, blastomycosis, coccidioid-

omycosis, and hemagglutinations were all normal. Skin tests for PPD 1st and 2nd strengths, histoplasmosis, atypical strep. 0.1 and 1 micrograms were all negative. C-reactive protein was 2 plus. BSP was 30% with high alkaline phosphatase.

The patient was placed on INH maintenance dose which was discontinued after 2 weeks with no response, then placed on 30 mg./day of prednisolone with good results. The patient became afebrile and her local and general condition improved markedly and remained so.

Discussion

Sarcoidosis is a systemic granulomatous disease or group of diseases of unknown etiology. No single histologic feature may be regarded as pathognomonic. The epithelioid cell granuloma or tubercle, the cardinal feature of the disease histologically is a discrete, concentric arrangement of elongated epithelioid cells. Giant cells are common and may contain inclusion bodies, such as the "asteroid" or Schaumann bodies. Neither inclusion body is specific for sarcoidosis. Necrosis, as occurred in the present cases seldom occurs and caseation necrosis is absent.

Except in the earlier clinical phases of sarcoidosis, constitutional manifestations are produced almost entirely through mechanical interference with normal organ function. Clinical manifestations may present as local complaints referable to specific organ involvement. When the involvement is in the salivary and lacrimal glands the differential diagnosis is of prime importance. So that a diagnosis of sarcoidosis can be made, correlation of clinical findings and pathologic changes are necessary. The occurrence of uveitis (Heerfordt's disease), would be one more factor in the diagnosis.

Some features in our cases strongly support this diagnosis even as an isolated finding. Among these are: (1) bilateral, massive hilar or paratracheal node involvement in apparently healthy patients; (2) the non-caseating granulomatous nature of the lesions; (3) the elevation of gamma globulins; and (4) dramatic involution of symptoms after steroid treatment. Lacrimal and salivary lesions are very rare in tuberculosis, berylliosis, and histoplasmosis.

In our cases a lymphadenopathy of sarcoidosis type, was the presumptive diagnosis

by exclusion. The enlargement of the salivary gland may be considered a manifestation of the systemic disease, and therefore, the changes were not only present in the major but also in the minor salivary glands.

Neither of our patients had sialectasis which is one of the characteristic features of the group described as "benign lymphosialadenopathies."

The sialopathies in our cases clinically follow very closely the classical patterns described separately in the medical literature under the name of Mikulicz's disease and Gougerot-Sjogren's disease or syndrome, but they appear as an episode in a more severe disease with the characteristics of sarcoidosis.

The sialography and the histologic picture of a granulomatous disease are in agreement with the characteristics of the group "parotid swellings and specific granuloma."⁴

We can see how different clinical aspects in the same area may be the only local manifestations of a systemic disease. If a complete general evaluation is not made, the true etiology might easily be overlooked, and an erroneous interpretation made.

Summary

Two cases, one with the typical aspect of Mikulicz syndrome complex and the second with the picture of an incomplete Gougerot-Sjogren syndrome have been observed during the course of sarcoidosis.

Sialograms showed no sialectasis. Hypergammaglobulinemia was present in both cases. Hilar adenopathy was present in both cases. Histologically, both patients had granulomatous disease and showed good response to steroids.

We believe the terms Mikulicz's disease and Gougerot's-Sjogren's syndrome are helpful to indicate a salivary condition appearing of a benign nature. They represent two different clinical features although their origin may be the same.

Mikulicz's syndrome on the other hand has the same clinical features but the origin is definitely one due to systemic disease with localized salivary and lacrimal gland involvement.

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* * *

Profit-Making Hospitals

During recent House Ways and Means Committee hearings, Chairman Wilbur Mills said that Medicare per-patient costs will rise 14 percent in 1970, 13 percent in 1971 and then gradually decline to a steady 4 percent per year increase after 1977. Walter J. McNerney, Blue Cross Association president, said that Blue Cross costs, for under 65 patients, will go up 14 percent per year "indefinitely." These are not comforting facts and figures but there's no reason to doubt them because we see no signs of any substantial effort to *reduce* hospital care costs.

The community hospital, as we know it today, is a benevolent monopoly. Much of its income is not earned and competition, if indeed it exists at all, is of no consequence. The customer (more often called the "patient") seldom selects his own hospital and the size of his bill is more or less ignored—until he tries to leave. He then finds that the often colorless little cubicle to which he's been confined rents for \$40 a day and that aspirin, which cost three-for-a-penny at the grocery store, sell for 50 cents apiece. Many of these patients, for reasons which aren't too hard to comprehend, seem to think that doctors "control" hospital care costs and we thus have a perpetual open season on doctors—where health care costs are concerned.

Years ago, with tongue in cheek, we

hinted that Conrad Hilton could probably open a hospital, employ modern management methods and make more money than he's made on a few of his not-too-posh establishments. To the best of knowledge, there are still no Hilton hospitals but other entrepreneurs are indeed building hospitals which will (a) take care of people and (b) operate on a profit-making basis.

This has already created a kind of inter-hospital dichotomy. The money-losing hospital does not like the money-making hospital because the money-making hospital makes the money-losing hospital look financially inept. The money-losing hospital then accuses the money-making hospital of skimming off the cream of the paying-patient market and of not concerning itself with the care of indigent persons. All of this leads to ill feeling (but perhaps simultaneously to less crowded hospital facilities).

We're not taking sides or coming out in favor of or opposed to money-making hospitals. But we are deeply concerned about hospital care costs which have been going up and up and up almost since the memory of man runneth not to the contrary. We are equally or perhaps more concerned about the fact that only the patient really seems to care. For these reasons, anything that calls objective attention to this problem deserves an opportunity of its own.

—Editorial, from American Family
Practice—GP, May, 1970

The author describes a method of re-establishing arterial continuity without arterial suture.

Healing of Severed Human Arterial Ends and Re-establishment of Circulation Without Arterial Suture*

BEVERLY DOUGLAS, M.D.,† Nashville, Tenn.

Experimental Evidence

In 1963, Douglas and Foster¹ reported several experiments in which the radial, ulnar and brachial arteries were divided in monkeys. The wounds were sutured in layers over the retracted ends of the arteries forming snug compartments over them but without sutures in the arterial walls. Nine monkeys had divisions of large arteries in this manner: 4 radials alone, 3 radials and ulnars simultaneously, and 2 brachials. The concomitant veins were not divided.

In a later article with Foster and Mac-Millan,² we extended these studies to include division of larger arterial trunks viz., the femoral arteries in large dogs. In these, retraction of the ends of the divided vessels was prevented by two interrupted fine silk sutures in the outer two coats at opposite points of their periphery which kept them loosely together during healing but, of course, did not provide security against leakage. In other words, conventional arterial suture was not performed. Four divided femoral arteries were treated by this technique, in monkeys and 9 femoral arteries in dogs. The concomitant veins were not divided.

In no case, after removal of tourniquet or clamp, was there any significant hemorrhage or hematoma, wound disruption or clinical impairment of function. In 24 months of follow up studies, no aneurysm has occurred, no arteriovenous fistula.

Following these operations the patency of the arteries has been demonstrated by six

different types of study: (1) arteriograms (Fig. 3b);² (2) retrograde arteriograms; (3) arteriograms with a lead catheter (Fig. 5b);² (4) functional rate of absorption of radioactive isotope iodine; (5) gross examination (Fig. 1); and (6) serial microscopic sections (Fig. 2).



FIG. 1. Longitudinal Section of Artery Healed in Continuity Without Any Suture (Catheter in Lumen at a), Dog Experiment.

(Courtesy of the Excerpta Medica Foundation.)

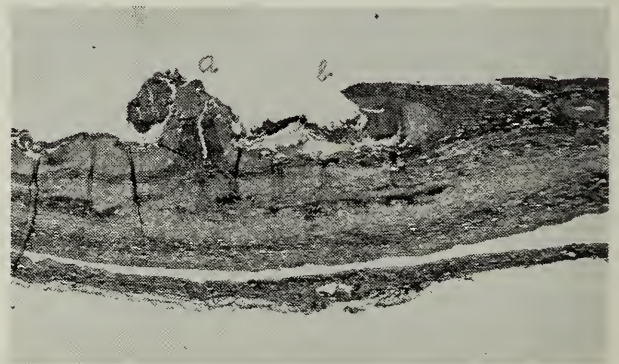


FIG. 2. Microscopic Section of Healed Femoral Artery in Dog. "a" Three Coats of Artery Ends Healed in Continuity. "b" Small Organized Clot in Intima at Healing Site.

(Courtesy of the Excerpta Medica Foundation.)

†From the Department of Surgery, Vanderbilt University Medical Center, Nashville, Tenn.

Research supported in part by a grant from Duke Laboratories, South Norwalk, Connecticut.

*Read at the meeting of the Tennessee Society of Plastic and Reconstructive Surgeons, April 10, 1970, Memphis, Tenn.

Summary: In 12 experiments employing the above technique without arterial suture, we have shown that arterial trunks as large as the radial will heal in continuity with

re-establishment of circulation if only a compact compartment or channel of soft tissue be established around them (the ends) by careful suturing of tissues in layers external to them. In 13 experiments (9 dogs, 4 monkeys), we have demonstrated that the common femoral arteries will heal with only two sutures for approximation, 12 and 6 o'clock, through externa and media only of both ends and similar suture of tissues in layers external to them.

Report of a Clinical Case*

The patient, aged 22, was treated for one week at Vanderbilt University Hospital. Thirty minutes before admission, while at work at the Ford Glass plant he had sustained a serious laceration of the left wrist. He was working at night placing large sheets of windshield glass in a metal "basket" or container. These sheets are one-half windshield thickness, and two of these are later cemented together with plastic between to make shatterproof shields. While carrying a single sheet, it cracked completely across horizontally near the lower edge. He tried to balance it but the razor-sharp lower edge of the upper fragment slid across his wrist with a gliding guillotine action backed by its great weight, cutting through his glove and producing the injuries to the flexor side of his wrist, which were enumerated on his chart.

Physical Examination. Findings, except for the left forearm, were within normal limits. A blood-soaked bandage was present on the left wrist and a tourniquet on the arm. The left hand was held in a fixed position. He was unable to flex his fingers or thumb and could not appose them or flex his wrist. Sensation of the thumb was intact but the remainder of the hand lacked sensation. A 4 inch long, deep laceration was present on the flexor surface of the wrist about 1 cm. above the flexion crease. This extended from the center of the lateral to the center of the medial surface and as deep as the level of the bones (Fig. 5). At admission the impression was "deep laceration with tendon, artery and nerve division."

Operative Findings and Procedure. There was complete division of the radial and ulnar arteries; the median and ulnar nerves; the flexor pollicis longus, sublimis and profundus tendons to the index, middle and ring fingers, sublimis tendon to the little finger, the flexor carpi radialis, flexor carpi ulnaris and the palmaris longus. Thus, all flexors except the profundus to the little finger were found to be divided.

All nerves and tendons were repaired with the exception of the sublimis tendon to the

middle and ring fingers and the palmaris longus. 4-0 and 5-0 silk were used throughout. The divided ends of the ulnar artery were ligated.

The ends of the divided radial artery were found to be retracted and separated too much for suture. The method of the author and his associates which has been successfully applied in many such divided arteries in animals was used. No attempt was made to suture the artery. The two ends were left separated by three-fourths of an inch in their beds. The tissues were sutured snugly but not tightly over the intervening space, in layers, including the skin. Thus, the ends of the artery were left apart with a compact open compartment between them. If this method had not been applied, only the interosseous artery would have been available for blood supply to the hand.

The tourniquet was removed at the end of the operation with no hematoma or external bleeding. The color of the nails was pink 3 hours after operation and remained satisfactory from then on. The patient was kept on anticoagulant therapy during the early postoperative period.

Subsequent Course. The circulation of the hand was never in doubt. There was no claudication. The wound healed per primam with little visible scar. After 2 weeks, treatments were begun in the Department of Physical Therapy and functions of the wrist and hand improved remarkably.

As shown in the photographs, (Figs. 3,4,5),



FIG. 3. (Case Report) Flexion of Thumb and Fingers 90 Days postoperative.

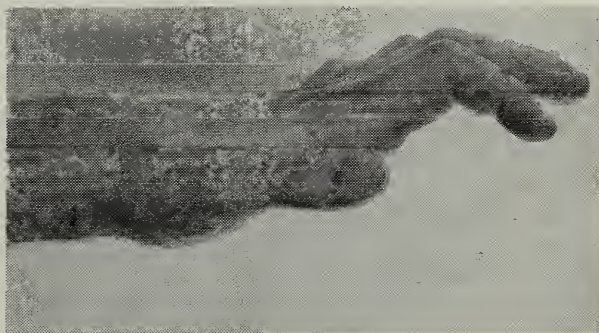


FIG. 4. Extension of Fingers (Same Date).

*Patient of Dr. Benjamin F. Byrd, Jr., to whom we are indebted for allowing us to give this report.



FIG. 5. Palmar View Showing Scar from Laceration to Bones Completely Across Wrist. (Same Date).

after 3 months, he had good flexion and extension of the wrist and fingers. Extrinsic muscle power, while improving, was slight but he was able to appose his thumb to the index finger (Fig. 3). He was able to resume most of his duties in his old job at the glass plant in February, 1964.

During convalescence, an arteriogram was made using 30 ml of Conray in the brachial artery 11 weeks following the injury (Figs. 6,7).

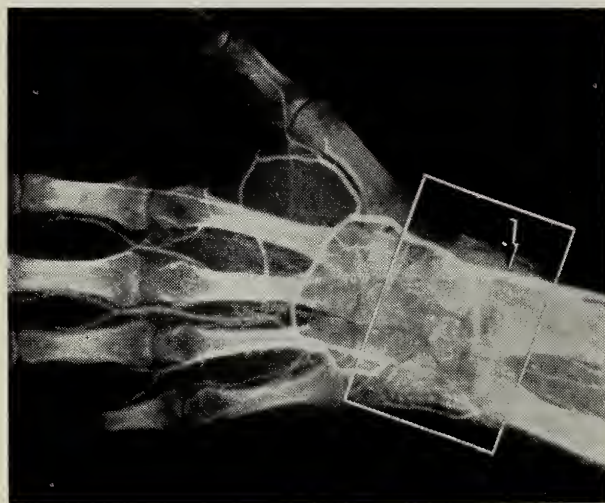


FIG. 6. Arteriogram at 11 Weeks With Conray in Brachial Artery Divided and Retracted Ends of Brachial Artery at Arrow Have Healed With Canalization.

It shows no interruption in the radial artery at the site of injury. The continuity of the coats is re-established without visible constriction and the dye passes without obstruction through the lumen of the recanalized radial artery. The arterioles and capillaries of the fingers are well filled. A wide but inadequate collateral circulation is visualized around the site where the ends of the severed ulnar artery had been ligated.

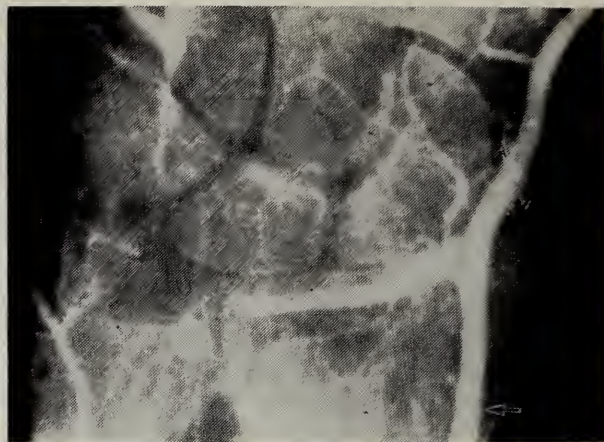


FIG. 7. Enlargement of Area in Box Showing Normal Radial Artery and Poor Collateral Circulation in the Ulnar Artery, Ends of Which Were Ligated at Operation.

At 41 months after operation, the Conray visualization of the radial shows only a negligible constriction at the site of the division, no other abnormality (Fig. 8). At this time the function of the hand is normal.

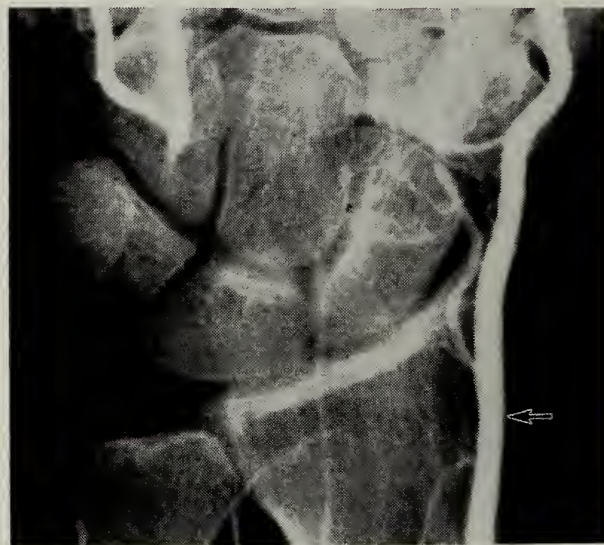


FIG. 8. Enlarged Arteriogram at 41 Months. Normal Circulation in the Radial Artery Without Aneurysm. Circulation Is Absent Through the Ulnar Artery.

Conclusions

The results of our experiments and the human case reported above appear to warrant the following conclusions:

(1) Subsequent to the division under tourniquet of arteries of considerable calibre, such as the radial, the healing process effects a union of the divided and retracted ends and accomplishes a direct

canalization and effective recirculation of blood without the aid of any arterial suture or prosthesis. Only suture of the tissues in layers to form a compartment over the retracted ends is necessary for such healing to occur.

(2) From the arteriograms there appears to be a tropism or attraction between the divided ends which draws them together between the second and fifth days (after division) and which enables them to heal coat to coat, intima, media and externa, and to carry blood again.

We feel very fortunate at the end of two years of experimental work demonstrating excellent healing of arterial ends without

suture to be able to add such a valuable human case to complete the demonstration of the value of this method in surgical practice.

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* * *

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CASE REPORT

Angiographic Findings in Splenic Rupture Secondary to Infectious Mononucleosis

Edward Buonocore, M.D.,* Knoxville, Tenn.

Splenic rupture due to infectious mononucleosis is a rare but lethal complication. Death may occur within minutes after the onset of abdominal symptoms and delay in surgical treatment has no place in current medical management. The purpose of this report is to present the *in vivo* and *in vitro* angiographic findings of a ruptured spleen secondary to infectious mononucleosis and to elaborate on the mechanism of rupture.

Case Presentation

A 21 year old white male student was presented to the student clinic one evening because of epigastric pain. The pain started suddenly while he was swimming. He had been in good health except for symptoms of mild coryza one week before the onset of abdominal pain. Treatment with antacids produced no change in symptoms, and he was admitted to the hospital 5 hours later.

Pertinent physical findings included guarding and tenderness of the epigastrium and left upper quadrant. Rectal examination elicited pain in the left shoulder. Admission PCV was 39%, Hgb 14.5 gm and total WBC count was 16,300. The differential count was 73% lymphocytes with many atypical cells. The serum heterophil was positive in dilution of 1:896; after guinea pig cell absorption it was zero.

The PCV remained essentially unchanged over the next 2 days and on the 3rd hospital day, the patient reported that the abdominal pain had abated. A selective splenic arteriogram was made on the 3rd hospital day and showed an enlarged spleen with displaced intrasplenic arteries, disruption of the peripheral subcapsular vessels and radiolucent areas in the subcapsular area, indicative of splenic rupture and a subcapsular hematoma (Figs. 1 and 2).

The spleen was removed 2 hours after angiography, and the angiographic findings were confirmed. Splenic arterial bleeding was seen at the time of operation and an extensive subcapsular hematoma was found over the superior pole of the spleen. The spleen was soft and fragmented easily on handling. The patient recovered uneventfully.

Discussion

Selective splenic arteriography has proven

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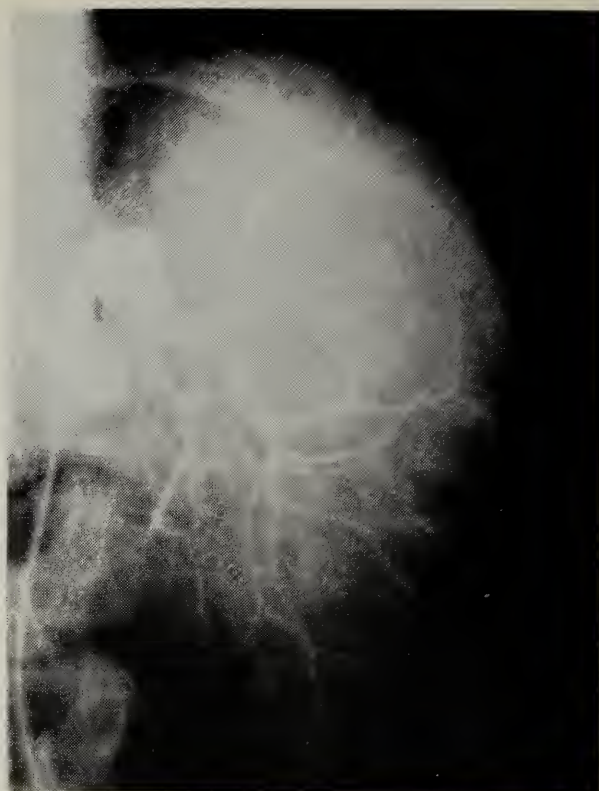


FIG. 1. Selective splenic arteriogram, arterial phase in frontal projection: Large spleen with spreading of the branches of the splenic artery is demonstrated. Peripheral arteries in the superior pole are tortuous. Flame-like densities of contrast media extend into the subcapsular area.

to be a valuable, safe and precise diagnostic means of diagnosing traumatic splenic rupture particularly in equivocal cases and when the plain roentgenograms are negative.^{1,2} There are no reports in the literature of the use of this technic in evaluation of the spleen in patients with infectious mononucleosis. In the patient discussed in this report the clinical situation was clear and a ruptured spleen was suspected after physical examination. The unchanging hematocrit, lack of appreciation of this complication, and to subsidence of abdominal pain gave the attending physicians a false security that delayed operation.

Severe abdominal pain is unusual in infectious mononucleosis. It occurred in only 2 of 153 patients with infectious mononucleosis in Hoagland's series.³ Both of these patients were operated upon; one had a ruptured spleen and the other had a negative exploration. Histologic sections of the ruptured spleen showed a normal general architecture. The splenic capsule and sub-



FIG. 2. Venous phase of arteriogram in figure 1. Triangular filling defect seen in the medial portion of superior pole of the spleen. Small radiolucent defects surround subcapsular peripheral area of the spleen.

intimal portion of the splenic veins were infiltrated with mononuclear white cells and atypical lymphocytes.

There are comments in the standard medical textbooks that although abdominal pain is not a common occurrence in infectious mononucleosis, involvement of the mesenteric lymph nodes occasionally simulates acute appendicitis and other intra-abdominal conditions.^{4,5} Because of the findings in this patient, early splenectomy should be considered in patients with infectious mononucleosis and severe abdominal pain. The absence of a drop in hematocrit may give false security because of a contained subcapsular hematoma. In cases where the findings remain equivocal, splenic arteriography may be of assistance to establish the need for surgical treatment.

The histologic findings of a ruptured spleen in infectious mononucleosis correlate well with the in vivo and in vitro angiograms of the spleen in this report. The radiograph of the barium injected arteries

and veins of the specimen show dilatation, irregularity and fragmentation of the peripheral vascular branches. (Fig. 3) This

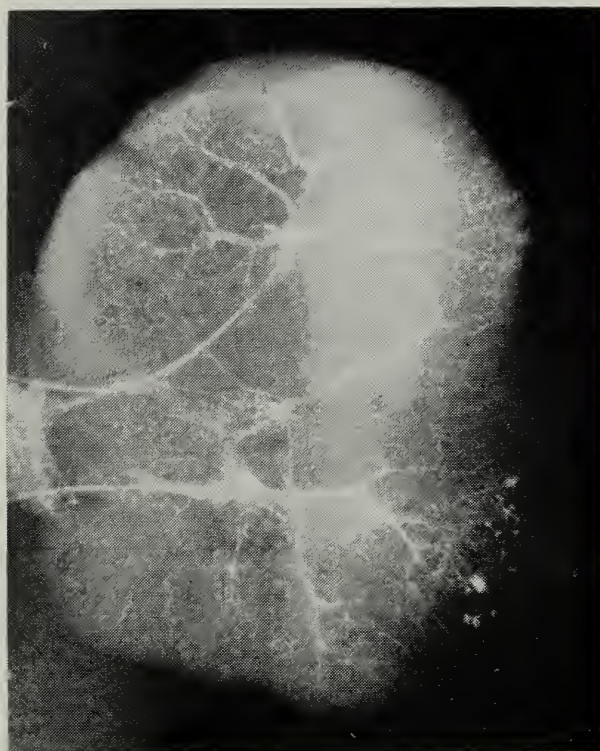


FIG. 3. In vitro injection of specimen. Artery injected to superior pole, vein to lower pole. Note subcapsular radiolucent defect in upper pole and irregularly dilated peripheral splenic veins in inferior pole.

can also be appreciated on the splenic arteriograms as manifested by flame shaped densities of contrast media extending from the peripheral arteries of the spleen to the capsule.

These angiographic findings add to the understanding of the cause of splenic rupture in infectious mononucleosis. The filtration of mononuclear cells of the peripheral splenic veins lead to distintegration of the normal vascular anatomy and subcapsular structures leading to splenic hemorrhage and rupture.

Summary

A selective splenic arteriogram and an in vitro venogram and arteriogram of the specimen are presented in a patient with infectious mononucleosis and spontaneous rupture of the spleen. The cause of rupture is due to destruction of peripheral splenic vessels by mononuclear cell infiltration. The

need for immediate operation in patients with infectious mononucleosis and severe abdominal pain is stressed. In patients suspected of splenic rupture due to infectious mononucleosis, splenic arteriography may be of assistance establishing the need for operation when clinical findings are equivocal.

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STAFF CONFERENCE

St. Thomas Hospital*

Surgical Treatment of Coronary Artery Disease

DR. HARRY L. PAGE: The subject matter this morning is of special importance here at St. Thomas since we are seeing increasing numbers of patients with coronary artery disease and are gaining experience with some of the newer surgical approaches. We recognize that obstructive coronary artery disease is the major organic health problem in the United States. This is basically a biochemically induced mechanical problem and its future prevention and treatment obviously lies in what we can learn about the biochemical aspects. At the present time, however, there are approximately 20 million people symptomatic with coronary artery disease in the United States and certainly during our lifetime we will continue to see large numbers of people suffering from this mechanical problem.

Two technical advances during the past ten years have offered an option to the approach of patients with coronary artery disease as contrasted to our traditional diagnosis and treatment. The first of these is the development of image intensification fluoroscopy and coronary cineangiography. This diagnostic procedure has allowed anatomical definition of the problem during life. It is rather amazing to realize that the leading organic health problem in the United States has not been routinely anatomically defined during life. This is in contrast to most other diseases of major organ systems including such things as vascular malformations of the brain. Until the past few years the diagnosis of angina pectoris has meant little more than "pain in the chest" and has been somewhat analogous to my grandfather's diagnosis of "fever" 75 years ago with no further definition of the problem. The second technical advance is the development of the pump oxygenator which has allowed surgeons to

operate directly on areas of the heart which have been previously inaccessible.

To illustrate our newer option in the management of patients with suspected coronary artery disease we will present a case history in which the patient has recently undergone coronary artery surgery.

DR. LOYDA TACOGUE: Our patient for today is a 40 year old auto body repairman from Clarksville, Tennessee. He has suffered from angina pectoris for at least 10 years. Four years ago he was admitted to Vanderbilt University Hospital where coronary arteriography was performed. Findings showed atheromatous changes in the left coronary artery and nonvisualization of the right coronary artery. Recently, there has been progression of his disease to the point that the slightest exertion, such as walking about the house, precipitates pain. He has also suffered from nocturnal angina. He denies smoking. He has no history of diabetes, hypertension or elevation of cholesterol.

There is no family history of coronary artery disease; though, his mother died of diabetes mellitus.

Physical examination is totally unremarkable. His blood pressure is normal. His resting EKG is within normal limits. A Master's 2-step test in the office of Dr. Laurence Grossman was unremarkable. Serum cholesterol was 340 mg. The chest film is within normal limits. On Jan. 12, 1970, coronary arteriograms were repeated at St. Thomas Hospital.

On Feb. 3, 1970, a coronary artery bypass graft was done utilizing both saphenous veins. The left saphenous vein was divided making a Y graft; one limb of this graft was sutured to the anterior descending artery and the other to the circumflex artery. The right coronary artery was found to contain a large amount of atheromatous material which required localized endarterectomy. After completion, a graft was sutured to the right coronary artery.

Dr. Grossman will tell us how he is doing now.

DR. LAURENCE GROSSMAN: This man has done well as regards his chest pain due to coronary insufficiency. He was readmitted to St. Thomas Hospital 2½ weeks ago with a violent postcardiotomy syndrome in which he had intense malaise, aching, a daily temperature of 102 to 103° and nonspecific type of infiltrative lesions in the right lung base demonstrable on x-ray. Cultures at this time (blood and urine) were sterile. He was treated with steroids and has been asymptomatic since then. He has had no further chest pain and his exercise tolerance is excellent. He is able to walk 5 or 6

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blocks without angina and is now at full activity.

DR. PAGE: At this time I would like to demonstrate the patient's coronary arteriograms. This 40 year old man is rather unfortunate to have such severe coronary artery disease with a normal resting EKG and physical examination. His coronary arteriograms show a 50% segmental obstructive lesion in the main left coronary artery, complete occlusion of the anterior descending artery which fills distally by small collaterals, and complete occlusion of the right coronary artery with distal filling by small bridging collaterals from the right side and by small collaterals from the left-sided injection. The left ventricular end diastolic pressure and ventriculogram are normal. Dr. Grossman, you have recently referred several patients for evaluation by coronary arteriography who have subsequently undergone coronary artery vein bypass surgery. In what way would you say your overall approach to patients with suspected coronary artery disease has changed in the past few years?

DR. GROSSMAN: There are now three additional parameters for evaluation of the patient with coronary artery disease. The first is the improvement of stress testing. The second is cardiac monitoring which is now employed, and which enables us to detect unusual periods of arrhythmia. Coronary arteriography constitutes the third parameter. I believe coronary arteriography has been the secret to real anatomic knowledge of the patient with coronary artery disease, in that we are able to visualize the coronary arteries and know what lesions are present. This opens a new approach to treatment. Thus, coronary arteriography actually aids in both diagnosis and treatment. As our studies evolve and as these patients are followed over a period of time, we develop prognostic information. In other words, soon we may be able to predict that a man with one vessel disease may live a certain length of time, whereas a patient with three vessel disease has a dim outlook. The improvement in technique of coronary arteriography and the relative safety of the procedure are additional items which have encouraged me to use it more often in

the evaluation of patients with coronary artery disease and in those who might be candidates for coronary artery surgery. I think our patient of today illustrates the improvement in technique. A few years ago when he had his initial coronary arteriogram, we were unable to visualize the right coronary artery. We were using the so-called "flush" technique. Because of his young age, the right coronary artery initially was thought to be absent. However, the atheromatous changes in his left coronary artery made us suspicious that this might not be the case, and now, as you can see, a second coronary arteriogram shows the right coronary artery, its obstruction and the magnitude and location of the occlusions.

I am often asked, should you do coronary arteriograms on everyone with coronary heart disease? Certainly not. There are people in whom coronary arteriography is indicated and others in whom such diagnostic procedures are not warranted. Whether or not a person should or should not have coronary arteriography depends, first, on the expertise of the individual performing the procedure and the basic cardiology laboratory set-up. People who should have coronary arteriography fall roughly into 5 groups.

(1) The young adult who has symptoms of coronary artery disease, with or without confirmatory electrocardiographic findings, should have coronary arteriograms, since this is the only way in which congenital anomalies can be detected in the very young individual and, particularly, the young female patient.

(2) The second group includes patients with angina and normal resting electrocardiograms and exercise tests. We have many examples of such patients. The patient presented this morning, is a young man with a normal EKG and normal stress test, and yet who has extensive three vessel disease.

(3) The third group consists of people who have atypical chest pain and in whom the diagnosis is difficult and uncertain. If one is in doubt as to the diagnosis and there is no other way of establishing a definite one, the risk of coronary arteriography is

so slight and the importance of knowing whether or not this patient has coronary artery disease is so great that coronary arteriography should be done.

(4) Patients with known coronary artery disease in whom surgical treatment is being considered. Also, if the patient is severely troubled with pain and his discomfort cannot be controlled, coronary arteriograms should be obtained.

(5) Coronary arteriography is indicated in patients with valvular heart disease, particularly in the older patient with aortic stenosis, prior to valvular surgery or replacement.

DR. PAGE: Dr. Anderson, you have had a special interest in the clinical presentation of chest pain caused by obstructive coronary artery disease. Are you aware of any specific historical points that guide you in selecting patients for initial medical treatment or for prompt evaluation for surgical treatment?

DR. EDWARD E. ANDERSON: I think ideally that all patients with suspected or proven coronary artery disease probably should be studied by coronary arteriography because one of the things we have learned is that there is no good correlation between symptoms and severity of the disease. If I were going to make a generalization, it would be that in any given patient it is virtually impossible to predict the extent of disease or to predict his future course solely on clinical grounds. There are certainly exceptions to this. Patients with severe clinical symptoms, as a general rule, can be expected to have rather severe disease. However, minimal or absent symptoms in no way assures one that the patient's disease is mild. (Fig. 1) We have seen patients who were asymptomatic and yet had total occlusion and good collateral circulation, but the artery or arteries providing the collateral circulation were themselves 90% obstructed. Since this is a progressive disease, it is really a time factor that we are debating and not whether or not the patient is going to have more problems. In essence, your question is how do we decide who is to have coronary arteriography and who is not.

There are probably two groups of patients

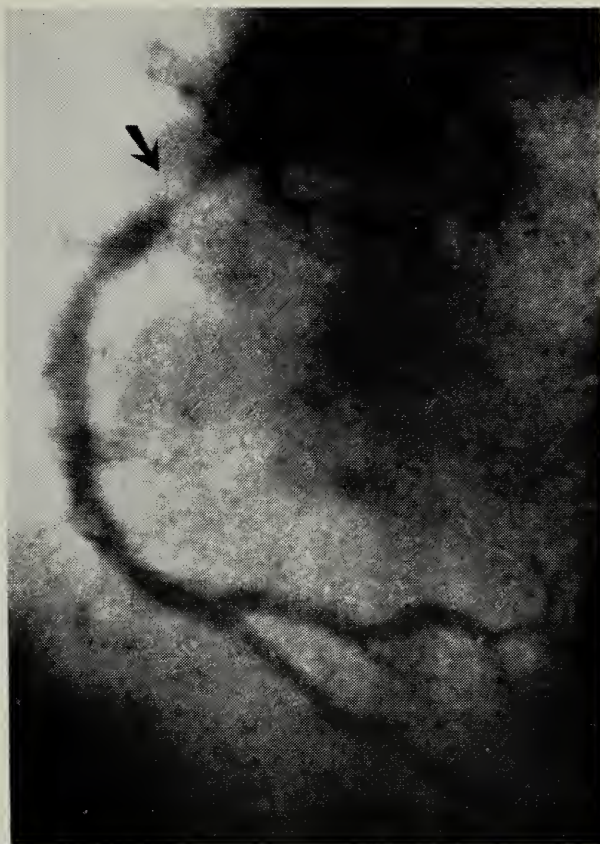


FIG. 1. Selective coronary arteriogram. 49 year old woman with typical angina pectoris on exertion; normal resting and exercise EKG. An example of discrete 90% segmental obstruction (arrow) of the proximal right coronary artery (left anterior oblique).

who I am not anxious to study. The first is the patient who had a myocardial infarction 4 or 5 years ago and who has been totally asymptomatic since that time. The second is a man one has been following for a period of time with mild, easily controlled and infrequent angina. Time has given us some of the answers that we could not have had when we originally saw the patient. The fact that these people have done well tends to indicate that their disease is mild or that they have good collateral circulation. But even in these patients there is a calculated risk. I think in general that anything that points toward progression of the disease with increase in symptoms indicates study of the patient. To summarize, there is no reliable correlation between symptoms and disease, but increasing symptoms usually mean increasing coronary obstruction and are an indication for study.

DR. PAGE: Dr. Kiger, you have been

especially interested in electrocardiographic stress testing. Are you aware of any resting or stress-induced electrocardiographic changes that guide you in selecting patients for initial medical treatment or for prompt evaluation for surgical treatment?

DR. ROBERT G. KIGER: Specifically, we are discussing mechanical obstructive problems of the large coronary arteries today. The various electrocardiographic stress tests should ideally predict which individual with such a process should be subjected to coronary arteriography or surgery. A superficial definition might divide the stress tests into the dynamic physiologic monitoring versus artificial stressing (Master's test, treadmill response, atrial pacing or isoproterenol [Isuprel] stress). To test the validity of the stress tests as predictive mechanisms, a correlation of EKG changes during stress with arteriographically described coronary artery anatomic and hemodynamic findings would be necessary.

Dr. Grossman mentioned earlier, dynamic monitoring using the 16 hour portable EKG tape scanner. With this method a correlation of ST segment depression or disturbance in rhythm is made with specific symptoms or activities. Though this type of monitoring of physiologic stresses is not finite for selecting patients for operation, it does aid in selecting further diagnostic studies. In the experience at St. Thomas Hospital, there has been a reliable association of ST-segment depression with the findings of significant coronary artery disease.

The double Master's test is the most common and simplest exercise stress test to perform, but probably does not yield the maximal information regarding patency of coronary arteries. Gorlin recently (Ann Intern Med, Dec. 1969) correlated the Master's test with anatomic findings in the coronary arteries in 60 patients. Patients with known coronary artery disease demonstrated an 80% probability of a positive test. Furthermore, 90% of the positive tests will have associated anatomic disease. Yet the negative test subjects still will have a 50% chance of anatomic coronary artery disease. Finally, the double Master's test becomes a predictive test for multiple vessel involvement when the ST-segment depression is

2 mm or greater.

Atrial pacing and Isuprel infusion have offered other types of stress challenge to coronary artery flow. Knoebel reported recently, at the annual meeting of the American College of Cardiology that coronary artery blood flow failed to increase or decrease in individuals developing ST-segment depression during pacing. In the group with minimal coronary artery disease, flow increased as expected while no ST-segment changes are noted. Failure to increase coronary artery blood flow with Isuprel infusion was similarly associated with positive treadmill tests. From this it may be concluded that ability to increase coronary blood flow to normal or near normal levels is associated with less likelihood of positive stress test.

Bicycle ergometry was used by Ralph Smith at Minnesota to correlate stress testing with hemodynamic data and coronary artery anatomy. His findings show that the abnormal ST-segment depression during exercise stress is associated with elevated left ventricular end diastolic pressures. If the rise is 24 mm Hg or greater, multiple vessel disease can be anticipated as pointed out by Gorlin's study cited above.

Four conclusions may be drawn from the above discussion.

(1) Positive stress testing correlates not only with the presence of coronary artery disease but with the extent of disease.

(2) Positive stress test suggests inability to significantly increase artery blood flow.

(3) Positive stress test relates to hemodynamic compromise of the left ventricle when ST-segment depression is greater than 2 mm.

(4) Negative test does not exclude coronary artery disease but seems to predict less compromise to blood flow, end diastolic pressure in the left ventricle or anatomic obstruction.

DR. PAGE: Dr. Alford, surgical attacks on coronary artery disease have been attempted for several years. Several such operations have met with initial enthusiasm only to be abandoned later on. Would you briefly summarize why such previous pro-

cedures largely have failed and why you are optimistic that such current procedures as coronary artery vein bypass and perhaps gas endarterectomy are better operations?

DR. WILLIAM ALFORD: Since the obstructive nature of coronary artery disease has been recognized, it has been the hope of physicians to find some way to therapeutically use the oxygenated blood in the mediastinal vessels or the left ventricle. It has been primarily toward this direction that most of the surgical attacks on coronary artery disease have been directed. However, the original surgical attack on anginal pain was begun in Europe as a denervation type of operation, either directly upon the heart or somewhere in the sympathetic or parasympathetic systems. These operations can still be done to relieve anginal pain but have nothing to do with increasing coronary blood flow. In 1935 Claude Beck first decided to try to increase oxygenated blood flow to the myocardium by narrowing the coronary sinus, the venous drainage to the heart itself, and to attempt to perfuse more blood into the heart rather than have it come out into the coronary venous system. His original operation was to narrow the ostia of the coronary sinus and thereby force more blood into the myocardium. It is very interesting that his enthusiasm initially was great as is everyone's enthusiasm when a new operation is developed for angina and the attendant mortality is not too high. He had no correlative studies defining the severity of the disease nor any anatomic findings when he started. The Beck I procedure eventually did fade out and is probably not done any more. He also devised a Beck II procedure which increased the flow of blood directly by an arterial graft into the coronary venous sinus in addition to narrowing it in an attempt to perfuse blood retrograde into the myocardium. This procedure was accompanied by such a high mortality that it was quickly abandoned. Another method which is still being used to relieve angina is not directly related to getting more blood into the heart but in decreasing the workload and consists of thyroid depletion either by operation or by radioactive iodine. The production of high cholesterol levels and edema in this ap-

proach has not been desirable in some of these people but in the elderly or poor risk patient it still has some place.

The methods for stimulating collateral channels to the myocardium have centered on bringing blood to the heart from sources of good oxygenated blood. Practically everything one can imagine has been brought to the heart starting with pectoral muscle, pieces of spleen, and various other organs which have been applied to the myocardium but the collateral circulation has never been adequate to obtain lasting relief.

Vascularization by artificial shunts was first attempted by Dr. Vineberg. His reasoning was that the heart itself has many sinusoids and would accept an open, bleeding artery and that eventually this artery would establish collateral circulation directly to the heart. He also started at a time when the anatomic features of the disease were unknown, implanting the open mammary artery directly into the myocardium and was convinced that his patients were improved. He was able to show over a long period of time that they had relief of pain, had returned to work and showed improvement in their electrocardiograms. It was not until Mason Sones began studying some of these people by injecting contrast material into the implanted mammary artery and observing visualization of the myocardial vessels, that this procedure received added impetus. Dr. Vineberg thinks it is better than anything else at this point. He believes that the other operations will not "hold up," that his operation has been done longer and that the collaterals, once established, will remain open. However, the enthusiasm of others for this operation has waned because their results have not been quite as good as Dr. Vineberg's. There have been other attempts at direct shunts, including the acupuncture of the left ventricle itself, in trying to establish blood flow from the ventricular chamber into the myocardium but this has not met with any lasting success. The direct approach to the coronary artery occlusion has been tried a number of times and requires preoperative anatomic definition. As you know, most of the obstructive disease in many patients

is localized to the large proximal arteries which lend themselves to surgical approaches. Endarterectomy of the obstructive lesion has been tried in California with a series by Drs. Cannon and Longmeier, and by Charles Bailey in New York, and results in these attempts have been good in the patients who survived. The mortality ranged from 20 to 50% or higher and the enthusiasm for this procedure was certainly not great. Transluminal dilatation has been attempted and carries a slight degree of improvement but with rapid reversal of this improvement as the disease progresses. Gas endarterectomy is another way of doing the same thing, but its application is limited to the right coronary artery since it carries a prohibitive mortality in the left coronary artery. All of the procedures thus far described have not required the use of the pump oxygenator and all have had some success, many late failures, and a rather prohibitive operative mortality. For this reason, we have been looking for something without these problems and we believe we have something like that now.

DR. PAGE: Dr. Stoney, it has come as a surprise to many people that coronary artery vein bypass surgery can be offered not only to patients with isolated obstructive lesions but to many patients with advanced triple vessel disease, involving the right coronary artery, anterior descending and circumflex arteries. Would you briefly summarize the technical aspects of this type of operation and explain why we might expect such grafts to remain open and to increase the myocardial blood supply in previously ischemic areas?

DR. WILLIAM STONEY: The operation is carried out using total cardiopulmonary bypass and moderate hypothermia (32°C.). We have used a disposable bubble oxygenator for all patients primed with 5% dextrose buffered to a pH 7.40 with sodium bicarbonate. Prior to the onset of total bypass, a long segment of saphenous vein is removed from one leg. If a three vessel bypass is indicated, the veins are obtained from both legs since the proximal saphenous is more suitable. The site of the proposed distal coronary anastomosis is then exposed by careful dissection of the cor-

onary artery and proximal and distal control of blood flow is obtained by passing heavy silk ligatures about the coronary artery. A longitudinal incision is made in the coronary artery and the internal diameter of the artery is measured with small graduated probes. The distal coronary artery is not perfused and cardiac arrest or fibrillation is avoided.

Hypothermia gives a quiet, slowly contracting heart and the distal anastomosis is completed using 6-0 or 7-0 Dacron sutures. Two power magnification aids in obtaining a very accurate water tight anastomosis. After the distal anastomosis is completed the ligatures are released and any bleeding is controlled with additional sutures. A partially occluding clamp is then placed on the ascending aorta above the aortic valve and the proximal anastomosis is accomplished in a similar fashion. Each anastomosis is 10 to 12 mm in length. Air is removed from the graft by aspirating with a small needle and the clamps are released. Care is taken to orient the graft so the flow through the saphenous vein is consistent with the small valves found in the vein. A second graft can then be carried out to another coronary artery in a similar manner. If a third graft is required, we usually bring the proximal end from one of the grafts already in place. After the patient has been rewarmed, bypass is discontinued, the heparin neutralized with protamine and before closure of the wound, the flow through each graft is determined with a flowmeter.

The postoperative course is carried out in the Cardiac Care Unit with constant monitoring and with a nurse in attendance who is familiar with defibrillation and principals of resuscitation. In the immediate postoperative period, we pay careful attention to determination of blood gases, central venous pressure, ventilation and renal function.

Dudley Johnson of Marquette University has measured flows in saphenous grafts immediately following placement and has found that the average rate was 68 ml of blood per minute. If the flow rate is less than this, in the order of 20 to 30 ml per minute, these grafts probably will not stay open for a long period of time. So it is

basically the flow rate through the graft and the distal runoff which determine whether or not the graft will stay open.

In our experience with saphenous vein bypass grafts, we have operated on 40 patients and have placed 67 saphenous vein bypass grafts in these patients. Nineteen of these patients had a single bypass graft into the right and circumflex arteries and 10 into the anterior descending artery. (Fig. 2) We

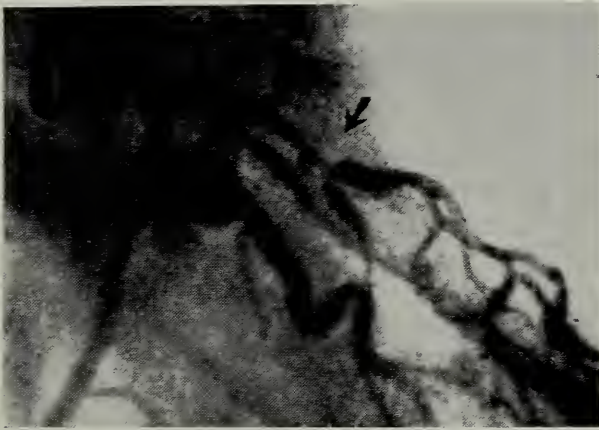


FIG. 2. Selective coronary arteriogram. 39 year old man with typical angina pectoris on exertion. An example of discrete 90% segmental obstruction (arrow) of the proximal anterior descending artery (right anterior oblique). The patient has subsequently had successful vein bypass surgery with good results.

have had 15 patients with double bypass grafts with combinations of anterior descending, circumflex and right. We have had 6 patients with triple bypass graft. We have had 2 deaths, one death 8 days following operation from a massive myocardial infarction due to thrombosis of a graft into the circumflex artery and the second 4 days postoperatively of severe respiratory failure. This represents a 5% mortality. We have restudied only 9 of these patients. One of the patients with a triple vessel graft had one closed vein graft. Our oldest patient (aged 70 years) had a double graft and one of the grafts became closed. Of the remaining patients who were restudied all had open vein grafts. We have had no late deaths in this group of patients. (Fig. 3)

What are the chances of improving a patient with this operation? In general, the probabilities are excellent if the anatomic features are satisfactory for an operation. The second question which arises involves



FIG. 3. Selective vein bypass angiogram. 52 year old man with typical angina pectoris on exertion. An example of a patent saphenous vein bypassing a 90% obstruction in the proximal anterior descending artery (right anterior oblique). Anastomosis indicated by arrow.

the mortality. The biggest single factor in estimating mortality is the function of the left ventricle. The patient with a flabby, poorly contracting ventricle is obviously a poor risk.

DR. PAGE: I would like to make a few comments on the evaluation of this type of surgery necessary to eventually prove its value or futility, but first I will invite questions or comments from the audience.

DR. PIERCE ROSS: Dr. Grossman, you have indicated what you feel are indications for coronary arteriography in certain patients. What do you think are contraindications for coronary arteriography?

DR. GROSSMAN: The patient who has had a myocardial infarction and does well thereafter, in my opinion, does not need to have coronary arteriography at this time. I think that the elderly individual who has a certain amount of angina and who tolerates his angina well and carries on with his usual occupation certainly does not need coronary arteriography. The patient with a recent myocardial infarction does not

warrant coronary arteriography. It might be that 2 years from now I will have a totally different answer to this question.

DR. SAMUEL RIVEN: Dr. Stoney, do you really know before the operation what left ventricular function is like?

DR. STONEY: Yes, we do. Ventricular function can be evaluated by the ventriculogram obtained during coronary arteriography—the force of contraction of the ventricle, the ability or failure of the ventricle to empty with each contraction, and the left ventricular end diastolic pressure all indicate the degree of impairment of the left ventricle. The mortality rate for patients with poor left ventricular function and congestive heart failure is of course higher than in patients with good ventricular function.

DR. THOMAS PENNINGTON: What risks are involved in coronary arteriography?

DR. PAGE: This is a question which we must consider when we talk about doing coronary arteriography and I think this must be viewed not in generalities but in more or less the experience of various individuals and laboratories doing the procedures. Theoretically, a physician like Mason Sones who has done 20,000 coronary arteriograms would have a mortality of less than one in 1,000 to 2,000 patients. This, of course, is not the experience of every laboratory getting underway. We have had 2 deaths in our laboratory from coronary arteriograms and we are now in our 550th procedure. I think that as long as we are learning to avoid problems as we go along, and sometimes these are very subtle things, we get a little better as we go on. If we are improving and striving to match those who have excellent records, I think the risk of doing the procedure to find out what is

anatomically wrong with the patient's coronary arteries is less than trying to manage him without such information.

DR. LANIER WYATT: Dr. Kiger, to what extent is treadmill stress testing more desirable than the traditional Master's test?

DR. KIGER: Treadmill stressing is more accurate and adds another 5% or so of positive results by carrying people to a maximum pulse rate response. If one does not obtain a heart rate over 120 or 130, one is not really stressing the myocardium and challenging the coronary blood flow. Such rates can be easily achieved by treadmill stressing.

DR. FRED GOLDNER: Is there a survey going on at this time to show the longevity of patients following vein bypass surgery?

DR. PAGE: There are several ways to estimate whether this type operation is effective. One method is simply the enthusiasm of local groups throughout the country. This is not very scientific, obviously, but it is perhaps wise at least to listen to what they have to say. Another way is the invasive type of study, such as ventriculograms, arteriograms, etc., for follow-up. An element of morbidity is implied in this. A third way is to develop a study of how the patient relates to his environment, stresses, etc., before operation and following the operation. The only study which will really give us the answers will take a long time to complete. This is to arrive at some manner of classifying patients as comparable based on stress testing, coronary arteriography, etc.; flip a coin, one goes to surgery, one doesn't, and live 20 years with the results. Such a longevity study may be difficult to pursue, however, and as in so many controversial areas of medicine, we may necessarily rely on our individual experiences.

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From the
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MEDICAL DIGEST

News of Interest to Doctors in Tennessee

AMA ADOPTS DUES INCREASE . . . The AMA House of Delegates has voted a \$40.00 membership dues increase, effective January 1, 1971 . . . Out of 328,726 U.S. MDs, AMA has membership of 219,570, of which 167,646 pay dues . . . The increase is needed to operate new and expanded programs; to pay Federal taxes on unrelated business income; and to provide for rising operating costs . . . One of the major items to be expended is a long-range institutional advertising campaign to tell the public of AMA's objectives and the role played by the membership in professional and public service.

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SOCIAL SECURITY CHANGES CLEAR HOUSE . . . The House has passed HR-17550, Social Security Amendments of 1970, which makes several changes to Medicare and Medicaid and the child health provisions of Title V of the Social Security Act. Under Medicare, the Bill: permits persons reaching age sixty-five who are otherwise ineligible for Part A benefits to purchase such coverage for \$27.00 a month, with the premium price rising as hospital costs increase; permits individuals eligible for both Part A and Part B to select to have their health care provided by a health maintenance organization (a prepaid group or other capitation plan) with the Government reimbursing the HMO on a capitation basis not to exceed 95% of the cost of Medicare benefits; authorizes HEW to set limitations on health providers reimbursable costs under Medicare based on the costs of services in a particular geographic region; limits recognition of physician's fees during fiscal 1971 under Medicare, Medicaid, and Title V to the seventy-five percentile of actual charges in the locality during 1969, and for fiscal 1972 and thereafter, increases in charges would be recognized only to the extent justified by higher expenses of physicians; places additional limits on reasonable charges for certain medical supplies, equipment, and services to the lowest price available in an area as determined by the Secretary of HEW; and prohibits reimbursement to health care providers for capital costs, such as depreciation and interest, in those instances where the costs were not consistent with state or local health planning plans.

* * * * *

MEDICARE PROVIDERS . . . The House Bill also authorizes HEW to terminate payments to Medicare providers found guilty of abusing the program; requires HEW to carry on experiments and demonstration projects to test the feasibility and methods of paying providers of care on the basis of negotiated rates; provides for payment to teaching physicians on the basis of reasonable costs rather than fee for service; establishes specific time periods following hospitalization during which a patient would be guaranteed payment for services in an extended care facility or for home health services; repeals the requirement in present law that States have comprehensive Medicaid programs by 1977; increases the federal matching formula for such out-patient services as clinic and

home health services under Medicaid and permits States to determine reasonable hospital costs under Medicaid, provided that the Medicaid program pays the actual cost of hospitalization of Medicaid recipients.

* * * * *

OTHER CHANGES IN SOCIAL SECURITY ACT . . . Increased cash benefits by 5% and also increased the amount of money that a Social Security recipient can earn before losing benefits; increased the annual wage base upon which Social Security taxes are assessed from the present \$7,800.00 to \$9,000.00 beginning on January 1, 1971 . . . Senate consideration of the House passed measure has not yet been announced by the Senate Finance Committee.

* * * * *

CHIROPRACTIC OUT OF MEDICARE FOR 1970 . . . Chiropractic under Medicare has been tabled by the House Ways and Means Committee for 1970, despite a tremendous campaign by Chiropractors to have their services covered . . . Controversial Part B Plan, which would promote closed panel prepayment systems, has been sent back to the Department of Health, Education and Welfare for development and actuarial workup. This plan is to be presented to the Committee for consideration again this summer . . . Regional Medical Programs (heart disease, cancer, stroke and related diseases) would be made a part of comprehensive health planning causing RMPs to lose their independence, if legislative proposals currently in Congress are adopted. RMPs would be continued, but under the control of regional planning agencies.

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(PRO) PEER REVIEW ORGANIZATION . . . A Bill is proposed to amend the Social Security Act to provide and call for a system of review of medical and other health services rendered under the supplementary medical insurance program for the aged . . . AMA has been active in trying to direct the Peer Review mechanism into medical channels rather than the government taking over this operation . . . The proposed plan would be run by the state medical association with districts throughout the state, and the proposed method of setting up such an organization. In those states and areas where this mechanism is not adopted, the Federal Government would set up its own commissions to expedite the Peer Review plan . . . More than likely, some type of commission plan will be enacted in each state.

* * * * *

AMA'S NEW M.D. RECOGNITION AWARD PROGRAM . . . Processing of applications for the AMA's "Physician's Recognition Award" is being delayed . . . About one-third of the 1,772 physicians whose applications were received last autumn neglected to enclose checks (5.00) for the fee. Some physicians misunderstand the intent of the award, which is to encourage all physicians to continue their education on a regular basis . . . Some general practitioners mistakenly believe that the continuing medical education program required for membership in AAGP automatically makes them eligible for the AMA award. Not so. One of the differences is that only those courses listed in the continuing education number of JAMA (first issue each August) are creditable. AAGP accredited courses are determined by individual state chapters . . . Application forms and a pamphlet outlining general requirements have been mailed to all physicians. Information required includes specific educational activity, sponsor, inclusive dates and credit hours. Completed forms should be returned to the Department of Continuing Medical Education, AMA, 535 North Dearborn Street, Chicago, Illinois 60610 . . . A total of 150 credit hours is needed to be eligible for the award.

Public Service

Communications Legislation

Hadley Williams, Public Service Director

PHYSICIAN REIMBURSEMENT POLICY REVISED UNDER MEDICAID . . . Dr. Eugene W. Fowinkle, Commissioner of Public Health, announced that beginning July 1, 1970 all physician services under the Tennessee Medicaid program would be reimbursed on the basis of the individual physician's usual and customary charges. The only limitation on this new policy is that imposed by the federal government which allows reimbursement only to the 75th percentile under all Medicaid programs. All physicians will receive notice of the change by letters from Commissioner Fowinkle and Dr. Tom E. Nesbitt, president of TMA.

* * * * *

DR. CANNON APPEARS BEFORE CONGRESSIONAL COMMITTEE . . . Bland W. Cannon, M.D. of Memphis, one of Tennessee's four delegates to AMA and a member of the AMA Council on Medical Education, testified last month before the House Interstate and Foreign Commerce Committee's Public Health and Welfare Subcommittee on bills relating to the extension of Regional Medical Programs and Comprehensive Health Planning and Public Health Services. In speaking for the AMA, Dr. Cannon supported the extension of the RMP law, and the inclusion of other "major" diseases along with Heart Disease, Cancer and Stroke. On Comprehensive Health Planning, Dr. Cannon called for a greater number of practicing physicians on State Planning Councils, saying that this would make use of the particular expertise of the medical profession. The AMA Witness expressed opposition to the Administration's proposal to amalgamate RMP and Comprehensive Health Planning and he expressed concern with any attempt to change the essential educational character of RMP to one for the provision of health services.

* * * * *

MEMORIAL FUND ESTABLISHED FOR DR. HARMON MONROE . . . A memorial fund in memory of Harmon L. Monroe, M.D., a past-President of TMA, has been established. The purpose of the fund is to assist a medical student or recent graduate of a medical school in the form of a loan if the recipient agrees to practice medicine in Dr. Monroe's hometown of Erwin, Tennessee. The fund was started shortly after Dr. Monroe's death in April and now totals more than \$11,000. Contributions and donations to the fund are being received by the Erwin National Bank.

* * * * *

MILAN TO HOST RURAL HEALTH CONFERENCE . . . The eighth annual Tennessee Rural Health Conference will be conducted at the 4-H Club Training Center in Milan October 7, 1970. Co-sponsored by TMA, the Tennessee Farm Bureau and University of Tennessee Agricultural Extension Service, the one-day meeting is expected to attract more than 250 persons. The complete program will be announced in the near future. Chairman of the TMA Rural Health Committee is Dr. Charles A. Trahern of Clarksville.

AMA AND JAYCEES LAUNCH PROJECT . . . The American Medical Association and the U.S. Junior Chamber of Commerce have launched a joint program to improve the Nation's Emergency Services. More than 325,000 Jaycees across the Nation will bring to the public's attention the need for standardized emergency vehicle equipment, properly trained medical attendants and a better communications system between vehicles and hospitals. The AMA had distributed over 9,000 program kits to Jaycee chapters and medical societies. The packet includes sample publicity materials, a first aid manual, a directory of state and local emergency medical services, guidelines for community councils, etc. and are still available from AMA on request.

* * * * *

DIPLOMA NURSING SCHOOLS STILL PROVIDE BULK OF NURSES . . . A survey by the National League for Nursing shows that during the 1968-69 academic year 695 diploma nursing programs graduated 25,114 nurses in comparison to 8,381 nurses graduated by 254 baccalaureate programs and 8,701 from 390 associate degree programs. Diploma programs also lead the list in accreditation by the NLN. Of the 695 diploma programs, 556 were accredited while only 90 of the 390 associate degree and 173 of the 254 baccalaureate programs were accredited. In other words, 80 per cent of the diploma programs, 68 per cent of the baccalaureate programs and only 23 per cent of the associate degree programs were accredited.

* * * * *

GROUP PRACTICE . . . The AMA reports that there are 6,371 medical groups and 40,093 physicians practicing in groups according to an AMA survey conducted last year. Of the 6,371 groups, only 396 (with 6,540 physicians) provide some care on a prepayment basis. Only 85 of these groups reported prepayment practice of more than 50%.

* * * * *

NURSES VOTE TO DOUBLE DUES . . . Delegates to the 200,000 member American Nurses Association recently voted to double their dues in order for the organization to pay its debts. Also adopted was a resolution calling for legislation to establish a National Health Insurance Program to include a restructuring of the present health care delivery system. No action was taken on a recent AMA proposal to use nurses in fee-for-service practice as a means of easing the physician shortage.

* * * * *

HOUSE ADOPTS NEW SOCIAL SECURITY TAX RATES . . . In somewhat of a surprise move, the House of Representatives adopted an amendment to the Ways and Means Committee's Social Security bill calling for automatic future increases in benefits. Benefits would be automatically hiked whenever the cost of living, as measured by the Consumer Price Index, rose by at least 3% in a year. The bill calls for a \$9,000 taxable wage base in 1971 and automatic increases in the wage base every two years. In 1973 the base would go to \$10,200; in 1975, \$10,800; in 1977, \$12,000 and in 1979, \$13,200 of wages would be taxed. The tax rate will also increase. Next year Social Security taxes will jump \$62 for both employer and employee as the combined tax rate rises from the current 9.6% to 10.4% in 1971.

* * * * *

SOCIAL SECURITY EXPERT RESIGNS . . . Robert J. Myers, chief actuary for the Social Security Administration, has resigned. Mr. Myers had accused certain top policy-making officials within SSA of wanting to take over virtually all economic security provisions of the entire population. He also said holdovers from the Johnson Administration were not faithfully serving President Nixon and that advocates of socialized medicine were openly operating in full force.

President's Page

Shortage of Physicians



TOM E. NESBITT

One of the greatest problems facing American medicine today is the shortage of physicians. This problem is severe to the extent that some government spokesmen declare there will be violent protests made in the future by those who are unable to obtain adequate care. As a result, government is moving ever closer toward "socializing" or "nationalizing" health care.

The shortage of physicians is acute in many areas of the Nation and in our State. We hear the hue and cry about the critical situation in so-called ghettos of this country. Tennessee is not alone among those states that are in need of additional physicians. There are communities in our State without a doctor. Many of our members are seeking physicians to join them in practice or their medical group. Many of these opportunities are financially attractive as well as needed in our State, which is becoming more populous. A recent statement by the past president of a large state medical association, pointed out that 90% of the problems facing American medicine result because there are not enough doctors.

For physicians, the shortage brings about longer working hours and the need to turn away patients. Thus, many people are going to hospital emergency facilities to obtain their care. This type treatment has quadrupled in the last fifteen years.

What are the reasons for the physician shortage? It is because there have been drastic increases in demands for health services. There are a number of reasons for that. The population has boomed faster than the doctor supply. More people can afford medical treatment and they demand more. There are more young and old in the country who need health care. The government health programs, such as Medicare and Medicaid, have given many access to medical care who never had it. Now most people think health care is a right, not a privilege, as formerly.

Many steps have been proposed to ease the doctor shortage. Some of them will take years to achieve. Some of the suggestions have recommended a crash program for medical schools such as that instituted in World War II. There are suggestions to make changes in medical education. Others call for reducing the time required for a medical student to become a physician. There is much talk about training physician assistants to take over many of the lesser duties of the doctor so that he can see more patients. We hear of recommendations to permit specially trained nurses to practice medicine under a doctor's supervision. This has been proposed by the AMA.

New programs for producing more doctors will have to operate a long time before there is any significant increase.

All of these suggestions are being considered. Studies are underway in Tennessee to consider building a new medical school in Tennessee. Solving this problem is one that is going to take the best efforts of all physicians and their medical organizations.

Sincerely,

A handwritten signature in cursive script that reads "Tom E. Nesbitt".

M.D.

President

THE JOURNAL

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R. H. KAMPMEIER, M.D., Editor

ADDISON B. SCOVILLE, JR., M.D., Associate Editor

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JULY, 1970

EDITORIAL

CORONARY ARTERY DISEASE

Advances in the diagnosis and treatment of vascular disease involving the coronary arteries have been accelerated tremendously during the past few years. This is well illustrated by the Staff Conference from St. Thomas Hospital of Nashville appearing in the present issue of the TENNESSEE MEDICAL JOURNAL.

The development and improvement of methods of visualization of the coronary arteries by coronary arteriography has been a major advance in recent years. This procedure is invaluable, not only for determining the presence or absence of occlusive disease in the coronary arteries, but also the extent of involvement of each of the major blood vessels with the disease process. Of 325 coronary arteriograms performed at St. Thomas Hospital, there has been one death during arteriography in a patient with a totally occluded right coronary artery who developed an anterior myocardial infarction. There have also been significant complications in 3 per cent of the patients requiring entry of an artery but most of these have been corrected easily by surgery. Thus, although coronary arteriography is

not innocuous, it certainly provides maximum information with a relatively small risk.

Whether the present method of performing coronary arteriography will be modified is purely conjectural; what is important is that a new diagnostic tool has become available for the clinician in attempting to better evaluate his patient. One might speculate that this procedure may become a part of the diagnostic evaluation of a patient in the coronary-prone group even before he experiences his first occlusive attack. This question, of course, cannot be answered at the present time but continued success with this procedure may indicate that in the future, routine use will be beneficial and will also be relatively safe. In any event, at the present time it is an extremely useful aid in evaluating the patient with coronary artery disease.

Another advance has been coronary artery bypass surgery which is the most recent development in surgical attempts to correct occlusive disease involving these blood vessels. The present procedure uses a saphenous vein graft and those involved in the present Staff Conference have performed 60 such operations with a mortality of approximately 3 per cent. Seven of these operations were triple involving grafts to the right, anterior descending, and circumflex coronary arteries, while the remaining cases were divided equally between single and double grafts. These procedures, too, offer possible hope to the patient with severe coronary artery disease with a minimum risk.

There will, undoubtedly, be modifications of the surgical procedure presently employed. Although the coronary artery bypass is more physiologic and does not depend on theoretical concepts as with mammary artery implantation, we do not know the long-term benefits which will be achieved. It would seem logical to expect diminution in the number and severity of anginal attacks and this result has already been noted in these patients. Whether the heart, revascularized by such a bypass, will be less prone to another myocardial infarction can only be determined by long-term observation as well as future experiments

designed to determine those factors responsible for the development of myocardial infarctions.

There are many unanswered questions. Over the United States numerous investigators are approaching with enthusiasm and renewed hope the problem of coronary artery disease. These new advances mean that another puzzle in medicine seems closer to solution.

A.B.S.



In the Editorial recognizing the death of Harmon Monroe comment was made of a proposed Memorial Fund in his honor. The following letter publicizes this Fund in the hope that friends of Dr. Monroe will contribute to this worthy cause.—Editor.

May 18, 1970

R. H. Kampmeier, M.D.
Vanderbilt University Hospital
Nashville, Tennessee 37203

Dear Dr. Kampmeier,

You have probably learned of the passing of Dr. H. L. Monroe on April 16th. Dr. Monroe was well loved and highly esteemed in our county as well as by people not living here.

It was the desire of many people here to establish a memorial fund in his name, therefore a foundation was initiated April 19th as part of our effort to obtain Family Physicians for Unicoi County. The purpose of the foundation is to provide assistance to medical students and/or Family Practice residents who need financial aid in order to complete their education.

Because Dr. Monroe had many friends residing outside this area who would not be aware of the foundation, we felt you may be interested in knowing about it.

No funds are being solicited. This is simply a means of making the memorial known to those who might wish to participate in it.

Should you desire to make a contribution, it should be sent to:

Dr. H. L. Monroe Memorial Foundation
Erwin National Bank
P. O. Box 601
Erwin, Tennessee 37650

The bank will keep a complete record of the

fund and a card bearing the names of all contributors will be sent to Mrs. Monroe.

If you wish to be informed of the progress of the fund, please write to me.

Very truly yours,

(Mrs.) Barbara Davis, Sec.-Treas.

Dr. H. L. Monroe Memorial Foundation
Unicoi County Memorial Hospital
Erwin, Tennessee 37650

IN MEMORIAM

Boehm, Robert J., Chattanooga. Died May 10, 1970, Age 53. Graduate of New York University School of Medicine, 1942. Member of Chattanooga-Hamilton County Medical Society.

Brooks, Louis P., Chattanooga. Died May 24, 1970, Age 86. Graduate of University of the South, 1907. Member of Chattanooga-Hamilton County Medical Society.

Burdette, Benjamin L., Shelbyville. Died May 19, 1970, Age 92. Graduate of Vanderbilt University School of Medicine, 1903. Member of Bedford County Medical Society.

Canada, E. A., Memphis. Died April 25, 1970, Age 72. Graduate of University of Tennessee, 1925. Member of Memphis-Shelby County Medical Society.

Capps, Hiram C., Waverly. Died June 6, 1970, Age 70. Graduate of University of Tennessee, 1927. Member of Benton-Humphreys County Medical Society.

Chambers, D. T., Norma. Died May 29, 1970, Age 85. Graduate of Lincoln Memorial University, 1914. Member of Scott County Medical Society.

McNelis, Richard P., Memphis. Died June 3, 1970, Age 45. Graduate of Hahnemann, Philadelphia, Pennsylvania, 1948. Member of Memphis-Shelby County Medical Society.

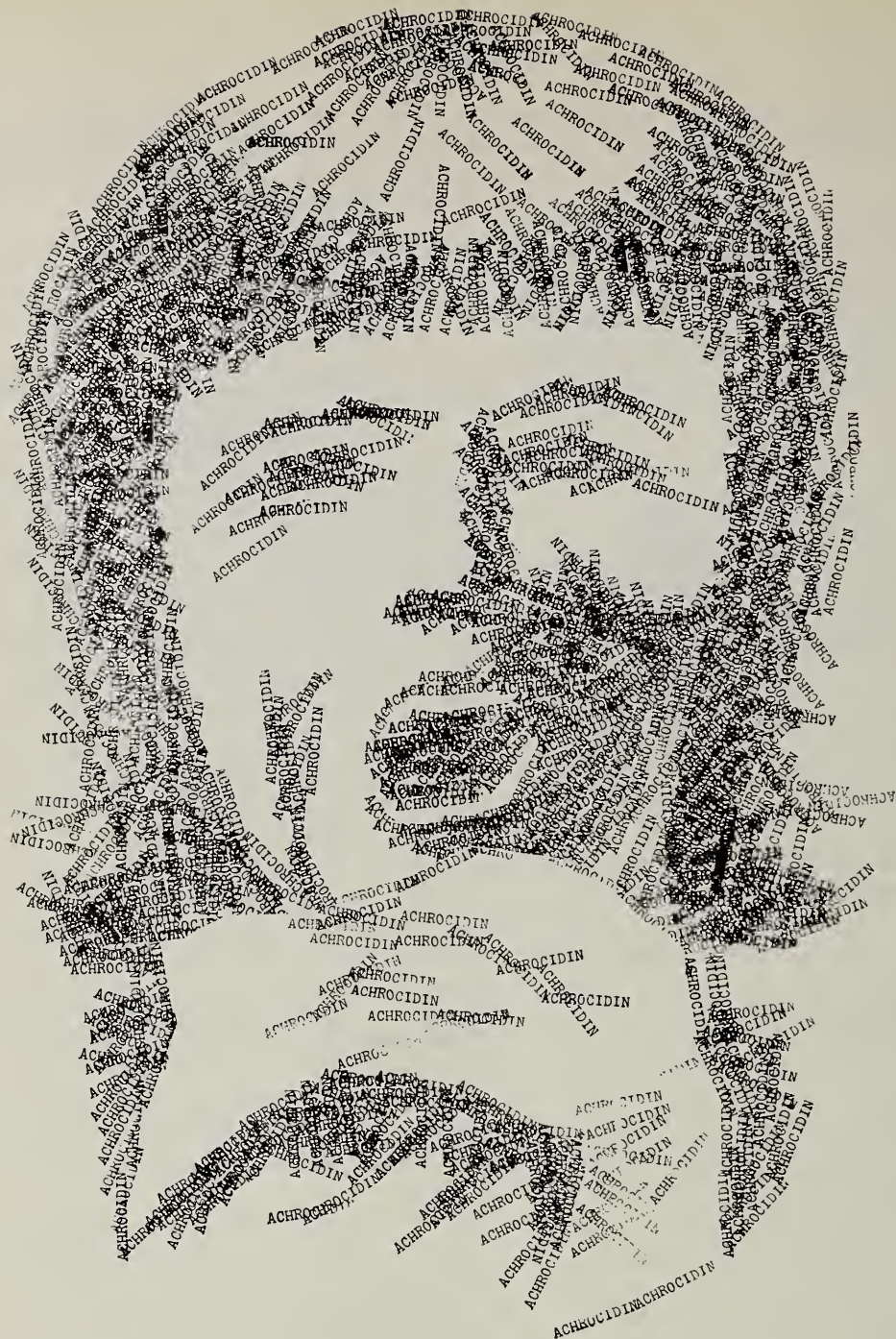
Steele, Willard, Sr., Chattanooga. Died May 1, 1970, Age 86. Graduate of Jefferson University, 1911. Member of Chattanooga-Hamilton County Medical Society.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES

Roane-Anderson County Medical Society

"Current Trends in Diagnostic Nuclear Medicine" was the topic of discussion at the May 26 meeting of the Roane-Anderson County Medical Society. The discussion was lead by several staff members of the Medical Division of the Oak Ridge Associated Universities.

The meeting was held in the Cafeteria of the Oak Ridge Hospital and was followed by dinner.



Achrocin[®] Tablets and Syrup

Tetracycline HCl—Antihistamine—Analgesic Compound

Each tablet contains: ACHROMYCIN[®] Tetracycline HCl 125 mg.; Phenacetin 120 mg.; Caffeine 30 mg.; Salicylamide 150 mg.; Chlorothen Citrate 25 mg.

ACHROCIDIN Tetracycline HCl—Antihistamine—Analgesic Compound Tablets and Syrup are recommended for the treatment of tetracycline-sensitive bacterial infection which may complicate vasomotor rhinitis, sinusitis and other allergic diseases of the upper respiratory tract, and for the concomitant symptomatic relief of headache and nasal congestion. For children and elderly patients you may prefer caffeine-free ACHROCIDIN Syrup. Each 5 cc contains: ACHROMYCIN Tetracycline equivalent to Tetracycline HCl 125 mg.; Phenacetin 120 mg.; Salicylamide 150 mg.; Ascorbic Acid (C) 25 mg.; Pyrilamine Maleate 15 mg.

Contraindications: Hypersensitivity to any component.

Warning: In renal impairment, since liver toxicity is possible, lower doses are indicated; during prolonged therapy consider serum level determinations. Photodynamic reaction to sunlight may occur in hypersensitive persons. Photosensitive individuals should avoid exposure; discontinue treatment if skin discomfort occurs.

Precautions: Drowsiness, anorexia, slight gastric distress can occur. In excessive drowsiness, consider longer dosage intervals. Persons

on full dosage should not operate vehicles. Nonsusceptible organisms may overgrow; treat superinfection appropriately. Treat beta-hemolytic streptococcal infections at least 10 days to help prevent rheumatic fever or acute glomerulonephritis. Tetracycline may form a stable calcium complex in bone-forming tissue and may cause dental staining during tooth development (last half of pregnancy, neonatal period, infancy, early childhood).

Adverse Reactions: *Gastrointestinal*—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. *Skin*—maculo-

popular and erythematous rashes; exfoliative dermatitis; photosensitivity; onycholysis, nail discoloration. *Kidney*—dose-related rise in BUN. *Hypersensitivity reactions*—urticaria, angioneurotic edema, anaphylaxis. *Intracranial*—bulging fontanels in young infants. *Teeth*—yellow-brown staining; enamel hypoplasia. *Blood*—anemia, thrombocytopenic purpura, neutropenia, eosinophilia. *Liver*—cholestasis at high dosage.

Upon adverse reaction, stop medication and treat appropriately.



LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York 10965

Knoxville Academy of Medicine

At its June 9 meeting, the Knoxville Academy of Medicine initiated its newly consolidated post-graduate program by presenting two scientific sessions simultaneously, one in Internal Medicine and the other in Pediatrics. Dr. A. L. Cummins, Professor in the Department of Gastroenterology at the University of Tennessee in Memphis, was the principal speaker in the internal medicine session held in the Academy's main auditorium. Dr. Cummins' topic was "Further Techniques in the Study of Gastrointestinal Mucosal Disease—Suction Biopsy."

In the Pediatric program, Dr. Robert Hall, Knoxville, discussed "Pediatric Ophthalmologic Conditions." Dr. Hall's discussion was held in the Academy's library.



New Members

The Journal takes the opportunity to welcome these new Tennessee Medical Association members.

CONSOLIDATED MEDICAL ASSEMBLY OF WEST TENNESSEE

James G. Warmbrod, Jr., M.D., Jackson

MEMPHIS-SHELBY COUNTY MEDICAL SOCIETY

John E. Barnes, M.D., Memphis
 Alan L. Bisno, M.D., Memphis
 Jerald M. Duncan, M.D., Memphis
 Wade S. Garner, M.D., Memphis
 J. L. Guyton, M.D., Memphis
 William T. Hayes, M.D., Memphis
 Marshall L. Koonce, M.D., Memphis
 Larry B. Morrison, M.D., Memphis
 Walter L. Norton, M.D., Memphis
 John T. Riffin, Jr., M.D., Memphis
 Downen E. Snyder, M.D., Memphis
 Ralph C. Tierney, M.D., Memphis
 Keith D. Vanden Brink, M.D., Memphis
 Bill C. Weber, M.D., Memphis

NORTHWEST ACADEMY OF MEDICINE

Marion C. Glasgow, M.D., Union City

SULLIVAN-JOHNSON COUNTY MEDICAL SOCIETY

Paul John Christensen, M.D., Bristol
 Julio A. Salcedo, M.D., Kingsport
 Paul F. White, M.D., Kingsport

Walter W. Wolfe, Jr., M.D., Bristol
 Lee H. Miller, M.D., Kingsport

WASHINGTON-CARTER-UNICOI COUNTY MEDICAL SOCIETY

Willard H. Bennett, M.D., Johnson City

NATIONAL NEWS

The Month In Washington (From Washington Office, AMA)

The American Medical Association urged that Congress appropriate as much money as possible for medical education to help "meet the pressing need which exists today for an increased number of physicians."

Testifying before a House appropriations subcommittee, Dr. C. H. William Ruhe, director of the AMA's Division of Medical Education, said the association recognized the need for an overall reduction in federal spending to combat inflation.

"In view of this," he said, "we believe that in any appropriation priorities established for all government programs, those which affect health care should be given primary consideration. Further, because of the special need that exists at this period in our history for more physicians, we urged that appropriations relevant to the production of physicians be given first priority."

Dr. Ruhe pointed out that funds had not been appropriated for a backlog of approved applications for construction of facilities for new medical schools and expansion of existing schools as authorized by the Health Professions Education Assistance Act, the Health Research Facilities Construction Act and the Medical Library Act. He also said that full funding in the amounts authorized by the Health Manpower Act of 1968 is necessary to permit construction of new and expanded facilities before major enrollment increases in medical schools will be feasible.

"The provision in the Administration budget of funds for the Physician Augmentation Program and for special improvement grants has been a considerable incentive to medical schools to expand en-

rollments," Dr. Ruhe said. "But many schools have already increased their enrollments to full capacity in their existing facilities. Others have been in serious financial distress and are in desperate need of increased operational support to maintain their present enrollments or even to survive. It must be recognized that such schools will need further facilities and operating funds which are necessarily tied to increased enrollments."

The subcommittee's hearings were on appropriations for the 1971 fiscal years beginning this July 1.

Using funds appropriated for the current fiscal year, 1970, the Department of Health, Education and Welfare recently announced nearly 300 grants to schools of medicine and other health professions totalling more than \$54 million.

About \$7.6 million went to 27 schools of medicine and osteopathy under the Physician Augmentation Program. A government spokesman said the grants would enable the schools to increase their first year enrollment by 395 students.

About \$46.5 million in institutional grants was allotted to 260 schools in the health professions—medicine, dentistry, osteopathy, podiatry, optometry, pharmacy and veterinary medicine. These funds also will enable the schools to add more students through purchase of new teaching equipment, improvement of the physical teaching environment, purchase of supplies, books and periodicals, and other expenditures to improve the education of students.

* * *

The American Medical Association supports extensions of the Regional Medical Programs and, with some reservations, the program for Comprehensive Health Planning and Public Health Services.

Testifying before a House Public Health and Welfare Subcommittee, Dr. Bland W. Cannon, Memphis, Tenn., a member of the AMA's Council on Medical Education, emphasized that the AMA believes that RMP "should continue as a program of continuing medical education, with patient care being limited to demonstrations as an adjunct of the education and research processes."

He said the AMA opposes legislation that would combine the individual programs.

"These programs are relatively new and we believe should be evaluated, as well as allowed to develop further evidence of their individual strengths and weaknesses," he said.

Dr. Cannon pointed out that the AMA House of Delegates last December affirmed its support of the concept of Regional Medical Programs and urged AMA members to participate at all levels in giving guidance to implementing the programs.

The AMA supports broadening the scope of the programs to include "other major diseases," in addition to heart disease, cancer and stroke, he said.

He said a combination of the programs would result in a change toward emphasis on patient care in RMP.

"We would view with grave concern any attempt to change this essentially educational program to a program for the provision of health services," Dr. Cannon said. "The medical profession today generally views RMP as a means of aiding the physician to provide better care to his patients. It is this attitude which has brought about the outstanding cooperation between practicing physicians and RMP and which has been a major cause of success for the program thus far. If RMP returns to an earlier concept of providing services to the patient, rather than its present goal of assisting the individual physician to treat the patient more effectively, this cooperation will, in many cases, be lost. The program's beneficial accomplishments will then be diminished."

* * *

The American Medical Association supports in general, legislation (S. 3835) that would provide a comprehensive federal program for the prevention and treatment of alcohol abuse and alcoholism.

Dr. Marvin A. Block, Buffalo, N.Y., a member of the AMA's Committee on Alcoholism and Drug Dependence, termed the measure "a major landmark in public policy" in the field.

"It sets forth the proposition that alcoholism is an illness which can and should be treated, and it commits national re-

sources to the establishment and coordination of facilities necessary for treatment and rehabilitation," he said at a hearing of the Senate Subcommittee on Alcoholism and Narcotics. "We are in general agreement with this legislation."

The bill would establish a National Institute for the Prevention and Control of Alcohol Abuse and Alcoholism. The Health, Education and Welfare Secretary, acting through the institute, would be required to submit within one year a detailed federal program, develop model programs for states, and conduct research and educational programs. Federal grants would be authorized for prevention, treatment and rehabilitation facilities and programs at the state and local level.

Dr. Block specifically favored several of the bill's provisions, including one that treatment and control programs should be community based, whenever possible.

"Insofar as it is feasible and economically sound, most alcoholics should be treated in their own communities and not be relegated to a distant centralized institution for treatment," he said.

But the AMA spokesman questioned some other provisions. He saw no need for a new institute. He said the present National Center for Prevention and Control of Alcoholism could perform the proposed institute's duties and responsibilities.

He said the AMA also questions whether alcoholics should be made eligible for welfare cash benefits and for health care under other government programs, such as medicare and medicaid, on the ground that they are alcoholics.

Noting that the legislation is concerned mainly with operation of programs by public and voluntary agencies, Dr. Block said:

"We should not overlook, however, the role that the private physician has played, and can play, in this important area. More and more, the physicians of this country are facing up to the problem of alcoholism in their daily practice. They are recognizing that, as difficult as alcoholism may be, it is an illness which can be dealt with, and that they can help their patients in cooperation with other professionals in the community."

The bill was introduced by Sen. Harold E. Hughes (D., Iowa), a recovered alcoholic and chairman of the subcommittee, and 37 co-sponsoring senators.

* * *

L-dopa, a new treatment for Parkinson's disease, has been approved for general prescription use but it may be several months before it is available in ample supply.

"Clinical tests conducted during the past several years by medical researchers and two major drug firms have demonstrated the usefulness of L-dopa in the treatment of this disease which now afflicts possibly a million persons," FDA Commissioner Charles C. Edwards, M.D., said.

Approvals were granted to applications made by Hoffman-LaRoche, Inc., and Eaton Laboratories Division of the Norwich Pharmacal Co., Norwich, New York. Both firms conducted studies in animals and humans to establish the drug's safety and effectiveness. An analysis of these studies indicated that benefits to the patient outweigh the risks involved, the FDA said.

"However, the Food and Drug Administration will require both drug firms to continue research into the drug's long-term effects and make certain it is safe and effective for long-term use," Dr. Edwards said. "This is the first time that FDA has included such a requirement in a new drug approval."

In order to give a balanced picture, Edwards pointed out that:

—Clinical studies have shown that approximately one-third of the patients receiving L-dopa do not respond favorably.

—Side effects have been reported in a majority of patients, some of them quite unpleasant and others even dangerous. Whether or not the use of this drug is justified in the very early stages of Parkinson's has not been established.

—Since Parkinsonism is a chronic disease, patients will have to take L-dopa for long periods of time. We don't know how these patients will react after 5, 10, or 15 years of treatment. Because of our limited knowledge of the drug's long-term toxicity, it is conceivable that it could reverse the benefit to risk ratio.



Equipped for the thyroid emergency?

When an ambulance arrives with the unexpected patient presenting the classical picture of myxedema coma, is your hospital suitably equipped? It is if SYNTHROID® (sodium levothyroxine) injectable is at hand. You are also ready to conveniently handle post-operative thyroid medication situations until oral therapy can be reinstated.

In tablet form this single entity synthetic thyroid provides smooth, predictable response for thyroid replacement. An excellent drug for long-term therapy.

But in an emergency, when rapid replacement is needed to sustain life, prompt clinical response is essential. SYNTHROID injection makes this therapy instantly available. Is it available in your hospital?

Levothyroxine has a high binding capacity for serum proteins in contrast to other thyroid medicaments that may contain a thyroactive agent with low binding capacity. The bound levothyroxine is totally measurable using the serum PBI test. It is not unusual to find PBI levels of 8-10 mcg. per 100 ml. of serum.

INDICATIONS: SYNTHROID (sodium levothyroxine) INJECTION is specific replacement therapy for diminished or absent thyroid function resulting from primary or secondary atrophy of the gland, congenital defect, surgery, excessive radiation, or antithyroid drugs. It is indicated in myxedematous coma and other thyroid dysfunctions where rapid replacement of the hormone is required. When a patient does not respond to oral therapy, SYNTHROID (sodium levothyroxine) INJECTION may be administered intravenously.

PRECAUTIONS: As with other thyroid preparations, overdose may cause diarrhea or cramps, nervousness, tremors, tachycardia, insomnia and continued weight loss. These effects may become apparent in from 4 days to three weeks. Therefore, patients should be kept under close observation. Medication, in such cases, should be stopped for 2 to 6 days, then resumed at a lower level. In patients with diabetes mellitus, look for possible changes in metabolic activity which may affect insulin or other antidiabetic drug dosage requirements.

CONTRAINDICATIONS: Thyrotoxicosis, acute myocardial infarction.

SIDE EFFECTS: Side effects are secondary to increased rates of body metabolism: sweating, heart palpitations with or without pain, leg cramps, weight loss, diarrhea, vomiting and nervousness. Myxedematous patients with heart disease have died from abrupt increases in dosage of thyroid drugs. In most cases, a reduction in dosage followed by a more gradual adjustment upward will indicate the patient's dosage requirements without the appearance of side effects.

DOSAGE AND ADMINISTRATION: In myxedematous stupor or coma, with no evidence of severe heart disease, 200 to 400 mcg. of SYNTHROID (sodium levothyroxine) INJECTION may be administered intravenously utilizing a solution containing 100 mcg. per ml. Detectable effects are usually observed by the sixth hour after injection and are fully appreciated during the following day. A repeat injection of 100 to 200 mcg. may be given on the second day if significant improvement has not occurred. The intravenous use of sodium levothyroxine in myxedematous coma is advantageous because it produces a predictable increase in the concentration of protein-bound iodine, eliminates the need for multiple doses until oral therapy is reinstated, circumvents the uncertainty of oral absorption, and avoids the risk of pulmonary aspiration.

SUPPLIED: SYNTHROID (sodium levothyroxine) INJECTION is supplied in 10 ml. vials containing 500 mcg. of lyophilized active ingredient and 10 mg. of Mannitol, N.F.; a 5 ml. vial containing Sodium Chloride Injection, U.S.P. is provided as diluent.

Also supplied as SYNTHROID (sodium levothyroxine) TABLET in color coded compressed tablets, and in seven strengths: 0.025 mg. (orange), 0.05 mg. (white), 0.1 mg. (yellow), 0.15 mg. (violet), 0.2 mg. (pink), 0.3 mg. (green), and 0.5 mg. (blue). Each strength is supplied in bottles of 100 and 500 tablets.

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The name L-dopa comes from the initials of an amino acid, levodihydroxyphenyl-alanine. Dr. George C. Cotzias, of the Medical Research Center, Brookhaven National Laboratory in Upton, New York, was the first to demonstrate the usefulness of L-dopa at high dosage levels. Dr. Andre Barbeau, director of the Department of Neurobiology at the Montreal Clinical Research Institute, has been studying the new drug for the past 10 years and is also credited with aiding in its development as a treatment for Parkinsonism.

* * *

A marked increase in syphilis cases in the United States was reported by the National Communicable Disease Center for the first four months of this year.

The infectious disease jumped as much as 50 per cent or more in some areas while the nation as a whole experienced an increase to 6,861 cases from 6,203 for the same four-month period last year. One of the biggest increases was noted in New York City where 1,241 cases were reported as compared with 863 for the same period last year.

* * *

Congress approved legislation extending the 24-year old Hill-Burton federal-aid-to-hospitals program for three years with authorized expenditures of \$2.76 billion.

The final form of the legislation was a compromise agreed to by House and Senate conferees after the two branches of Congress passed differing versions.

The authorized expenditures broke down: \$1.26 billion for various state grant-in-aid programs for construction and modernization of hospitals, and \$1.5 billion for loan guarantees. The measure also authorizes funds to subsidize interest payments on loans up to three per cent.

The legislation approved by the conferees followed the House version for the most part. The Senate had approved a five-year \$6.2 billion bill. The conferees eliminated entirely a Senate provision for \$750 million of direct loans for public hospitals, which was strongly opposed by the Nixon Administration.

Also knocked out was a Senate amendment for a new formula for allocation of

federal funds in a way that would have benefited large industrial states. However, the Health, Education and Welfare Department was directed to make a study of possible formula changes and report to Congress in two years.

* * *

Two physicians and a management expert were appointed Deputy Assistant Secretaries for Health, three long-vacant posts in the Department of Health, Education and Welfare.

The appointees are:

—Dr. Thomas C. Points, Oklahoma City, Okla., for Health Services. He is an alternate in the AMA House of Delegates and on the AMA Council on Health Manpower. As director of the Department of Preventive Medicine at the University of Oklahoma Medical Center, he helped establish the state's rural health project, "Project Responsibility."

—Dr. LeRoy A. Pesch, Buffalo, N. Y., for Health Manpower. He was dean of the School of Medicine at the State University of New York at Buffalo.

—Gerald Riso, New York City, formerly with Booz Allen and Hamilton, Inc., management consultants, for Policy Implementation.

Still vacant in early June were the posts of Deputy Assistant Secretary for Research and Development and for Environmental Health and Prevention of Disease Problems.

Dr. Morris E. Chafetz, director of Clinical Psychiatric Services of Massachusetts General Hospital, Boston, was selected to succeed Dr. Jack Mendelson as chief of the National Center for the Prevention and Control of Alcoholism. Dr. Mendelson is returning to a teaching post at Harvard Medical School.

Two high-ranking officials left the HEW Department with critical blasts directed at their bosses.

Dr. Stanley F. Yolles said he quit as director of the National Institutes of Mental Health because the Nixon Administration had abandoned the mentally ill. HEW Secretary Robert H. Finch said he was fired because he was not cooperative. Dr. Yolles was succeeded by Dr. Bertram Brown who had been deputy director. Despite the dis-

pute, Dr. Yolles will stay in HEW until Nov. 1 as an assistant for mental health to Dr. Vernon Wilson, new director of HEW's Health Services and Mental Health Division. Dr. Wilson succeeded Dr. Joseph T. English who resigned quietly to take a high public health post in New York City.

Robert J. Myers, chief actuary of the Social Security Administration for 23 years, resigned with a charge that Social Security Administrator Robert M. Ball had attempted "to muzzle and intimidate me with regard to three speeches that I was making in support of the Nixon Administration's position on social security legislation." Ball denied it, and countered that Myers, who was supposed to be an objective career civil servant, had wanted to be a policy spokesman.

Myers had publicly accused Ball and other high SSA officials of being "expansionists" in the social security field with a goal of the federal government providing a retirement income level virtually as high as before retirement.

In a letter of resignation, Myers told Finch that these officials "have not—and will not—faithfully and vigorously serve the Nixon Administration."

MEDICAL NEWS IN TENNESSEE

Vanderbilt University School of Medicine

The Vanderbilt University School of Medicine announces its plans to establish a Children's Regional Medical Center for infants and children in the Mid-South. The Center is the natural outgrowth of the need for a regional center, able to give definitive diagnostic, consultative and therapeutic services in pediatrics. The separate hospital will treat diseases of children and will conduct research and training in the treatment of such diseases. It will be operated as a separate unit from the University and will have its own Board of Trust, made up mostly from lay people from the community.

The hospital will rely on sources outside the University for its funds. A Children's Fund will be created for funds collected through the efforts of the Board and the community. The Fund will provide additional support to enhance existing medical services for children, to create new or added services, to help recruit and foster activities of specialized physicians and scientists, to train pediatricians and to pursue research into the causes and treatment of diseases of children. The funds will be sent to further the general purposes of the CRMC including service, education, and research.

The present plan calls for the Round Wing of Vanderbilt Hospital to be the Children's Regional Medical Center when the construction of the new University Hospital is complete. However, in the interim, a CRMC will be created, in concept and in function, in present space. In addition, approximately 9,600 square feet of shell space has recently been made available to the CRMC for the immediate creation of additional laboratories, diagnostic facilities, and faculty offices.

Dr. David T. Karzon, Chairman of the Department of Pediatrics, will serve as Chief of Pediatrics of the CRMC. The entire Vanderbilt Pediatrics Department will be utilized by the new hospital for faculty and consultative personnel.

* * *

James G. Blakemore, founder of the Yellow Cab Company in Nashville and co-founder of the Fidelity Federal Savings and Loan Association, recently notified the Vanderbilt University officials that he has provided in his will for the establishment of a Chair in Psychiatry at Vanderbilt. The announcement of Blakemore's action was made at a meeting of the Executive Committee of the Vanderbilt Board of Trust, which passed a resolution recognizing the gift with grateful appreciation.

In 1967, Blakemore created a \$60,000 living trust for the Vanderbilt psychiatry department. This fund will now be applied toward establishment of the Chair, with the remainder of the funds necessary to come under his will. Also, Mr. Blakemore will

continue to support a revolving loan fund which he started several years ago for the benefit of young doctors completing their training in psychiatry at Vanderbilt.

Blakemore became interested in the work of the Vanderbilt Department of Psychiatry largely because of his friendship with Dr. William Orr, retired Chairman of the Department.

* * *

Dr. Oscar B. Crofford, Associate Professor of Medicine and Physiology, is the recipient of the 1970 Lilly Award of the American Diabetes Association.

This award, which is the highest award given by the American Diabetes Association, is given "in recognition of demonstrated research in the field of diabetes, taking into consideration independence of thought and originality" and is being awarded to Dr. Crofford for his work in advancing the field of mechanism of action of insulin.

The University of Tennessee Medical Units

The University of Tennessee College of Medicine has received a \$400,000 grant from the National Institute of Health. Effective July 1, the award is the largest yet made to UT under the Health Professions Education Act of 1966. The college this year is receiving \$352,000 from the same source.

Dean Maston K. Callison said that the money will be used to hire additional faculty, to purchase teaching equipment and to further develop audiovisual teaching facilities within the Medical Units.

* * *

Degrees and certificates awarded at the June 7 commencement ceremonies at the Medical Units included: Ph.D., two; M.S., four; M.D., 82; M.S. in Orthodontics, five; M.S. in Pedodontics, three; D.D.S., 37; D. Pharm., four; B.S. Pharm., 62; B.S.N., 48; Cytotechnology certificates, seven, and Radiologic Technology certificates, seven. Dr. Andrew D. Holt, retiring president of the University made one of his final appearances at the Medical Units when he delivered the commencement address.

PERSONAL NEWS

Dr. Glenn P. Schoettle, West Memphis, was installed as President of the Mid-South Medical Association at the recent 81st Annual Meeting. **Dr. Julian K. Welch**, Brownsville, was chosen President-Elect for the Association.

Dr. Alfred D. Beasley, Knoxville, was elected President of the East Tennessee Heart Association at the 21st Annual Meeting held recently in Gatlinburg.

Dr. Arthur T. Fort, Memphis, was guest speaker at the Annual Meeting of the Planned Parenthood Association in Nashville. Dr. Fort's topic was "An Antepillum History of Birth Control."

Dr. Robert Lash, Knoxville, was the principal speaker at a recent meeting of the Sertoma Club in Knoxville. Dr. Lash's topic was "Medical Aspects of Drug Abuse Among Knoxville Teenagers."

Dr. Beverly Douglas, Clinical Professor Emeritus of Plastic Surgery at Vanderbilt University School of Medicine, has presented his entire surgical library, representing a collection of fifty years, to the medical school's Department of Surgery.

Dr. B. C. Smoot, McMinnville, is the 1970 recipient of the coveted VFW Citizenship Award.

Dr. John Saffold, TMA President-Elect from Knoxville, has been elected Chairman of the Knox County Health Council.

Dr. Richard L. DeSaussure, Memphis, was elected Parliamentarian of the American Association of Neurological Surgeons at the organization's recent meeting in Washington.

Dr. James N. Proffitt, Maryville, has been elected Chairman of the Board of Directors of the Maryville College.

Dr. I. Frank Tullis, is the 1970-71 President for the Memphis Heart Association. The announcement came at the Association's Annual Meeting and Awards Banquet in May.

Dr. Marcus J. Stewart, Memphis, discussed his six-week trip to the Republic of South Africa before the Memphis Rotary Club.

Dr. Walter P. Griffey, Paris, was installed as President of the West Tennessee Heart Association at the group's 12th Annual Meeting held recently in Jackson. **Dr. Harold R. Yarbrow**, Jackson, was named President-Elect of the Association.

Dr. Spencer Y. Bell, Knoxville, has been reappointed by Governor Buford Ellington to a four-year term as a member of the State Board of Medical Examiners. Dr. Bell was appointed to the Board in 1958 and has served as its President since 1959.

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Otolaryngologists—No Plastic Surgery
Surgeons—General (Specialists in general surgery)
Thoracic Surgeons
Urologists
Vascular Surgeons

Class 5—SURGEONS—specialists

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Neurosurgeons
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Plastic Surgeons

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Administrators

Dr. Harry Waggoner, Chief of Staff of the Mountain Home Hospital in Johnson City, has been named Chairman of the Upper East Tennessee Area Advisory Group to the Tennessee Mid-South Regional Medical Program.

Dr. William F. Meacham, Nashville, was chosen President-Elect of the Society of Neurological Surgeons, the oldest Neurological Society in the World, at the society's Annual Meeting in Boston. Dr. Meacham has also been elected Secretary of the American Association of Neurological Surgeons for a third term.

Dr. Robert B. Clark, III, Chattanooga, has been elected to Fellowship in the American Academy of Pediatrics.

Dr. Blair D. Erb, Jackson, assumed the office of President of the Tennessee Heart Association at the 17th Annual Meeting of the Association held recently in Gatlinburg. **Dr. Thomas Frist**, Nashville, was chosen President-Elect.

Dr. Tom E. Nesbitt, TMA President from Nashville, has been named President-Elect of the American Association of Clinical Urologists.

Dr. B. F. Byrd, Jr., Nashville, is one of five physicians whose comments on breast cancer treatment are included in the May 18 issue of MODERN MEDICINE.

Dr. Sam H. Sanders, Memphis, recently received the 1970 Distinguished Alumni Award from Texas A & M University at the College's commencement exercises on May 23.

Dr. William Cook, Lawrenceburg, was the featured speaker at a recent meeting of the Lawrenceburg Lions Club. Dr. Cook discussed the continuing efforts on the part of the Public Health Department in the fight against Tuberculosis in Lawrence County.

Dr. Frank Luton, State Commissioner of Mental Health from Nashville, has retired as the President of the American College of Psychiatrists. The college is a 300-member organization of Psychiatrists, of which only three Tennesseans are members.

Dr. Matthew Walker, Nashville, has received the Outstanding Achievement Award from the National Federation of Settlements and Neighborhood Centers in recognition of his work in establishing a comprehensive health center in North Nashville.

At the Tenth International Cancer Congress, held recently in Houston, **Dr. Benjamin F. Byrd, Jr.**, Nashville, was chairman of a program on Cancer of the Lower Intestinal Tract, Diagnosis, Surgery and Other Therapy; **Dr. R. H. Kampmeier**, Nashville, was one of a panel to discuss Ethical Considerations in Clinical Investigation.

Dr. Fred D. Ownby, Nashville, will practice internal medicine and cardiology in association with Drs. T. F. Frist, A. B. Scoville, O. M. Kochtitzky, J. P. Kinnard and C. R. Merritt.

BOOK REVIEW

CURRENT DIAGNOSIS AND TREATMENT. By **Henry Brainerd, M.D.**, University of California; **Marcus A. Krupp, M.D.**, Stanford University School of Medicine; **Milton J. Chatton, M.D.**, Stanford University and **Sheldon Margen, M.D.**, University of California, Berkeley. 852 pages. Los Altos, Calif.: Lange Medical Publications, 1970.

For the ninth consecutive year this "soft back" book has appeared as a means of updating clinical reference material for the office at a reasonable price. This is a reference book not to replace the usual textbooks of medicine, but is a more brief though important up-to-date compendium for daily use. Because it is designed for the practitioner, in the main the family physician, whether he be internist or general practitioner, it deals with the diagnosis and management of diseases in the field of internal medicine particularly. However, diseases of the specialties which are likely to fall into the hands of the family physician are also included in the presentations.

The reviewer has used this book over the years as a quick desk reference for leads in diagnosis and treatment. He recommends it enthusiastically for the specific purpose as indicated.

MEDICINE AND STAMPS. Edited by **R. A. Kyle, M.D.** and **M. A. Shampo, Ph.D.** 206 pages. Chicago: American Medical Association. \$1.00.

This little volume will be of interest to every physician who is a philatelist. One hundred and fifty men of medicine from all nations of the world who have been honored by postage stamps issued in their name, are portrayed in pictures. Each stamp is accompanied by a biographical vignette indicating his contributions to medical science. It is a book of historical interest.

More importantly, however, the reviewer believes that the book should be viewed in its potential as a gift. The AMA suggestions accompanying the distribution of the book include internes and residents as ones for whom this little volume should make an interesting gift. To the reviewer, however, much more importantly, it would seem that this book as a gift to teenage sons of doctors and other teenagers with interest in stamps would be most appropriate. Not only does it provide interesting reading in regard to the stamp itself, but provides descriptions of the lives and works of those who have been creative in medical science. The reviewer can think of nothing which might be more stimulating of interest in medicine as a career than this book whose main thrust may seem to be in the field of philately.

ANNOUNCEMENTS

Calendar of Meetings

1970

State

- Oct. 19-20 Tennessee Valley Medical Assembly, 18th Annual, Read House, Chattanooga

National

- Aug. 16-18 American Academy of Physical Medicine and Rehabilitation, New York Hilton, New York
- Sept. 10-12 American Association of Obstetricians and Gynecologists, Homestead, Hot Springs, Virginia
- Sept. 14-17 American Hospital Association, Houston
- Sept. 19-20 American Association of Ophthalmology, Las Vegas, Nevada
- Sept. 20-23 American Association of Medical Clinics, St. Francis, San Francisco
- Sept. 25-Oct. 1 American Academy of General Practice, San Francisco
- Sept. 30-Oct. 1 AMA Congress on Occupational Health, Century Plaza Hotel, Los Angeles
- Oct. 5-9 American Academy of Ophthalmology and Otolaryngology, International Hotel, Las Vegas, Nevada
- Oct. 12-16 American College of Surgeons, Conrad Hilton Hotel, Chicago
- Oct. 17-22 American Academy of Pediatrics, San Francisco Hilton, San Francisco
- Oct. 25-29 American Association of Blood Banks, San Francisco Hilton, San Francisco
- Oct. 25-30 American College of Chest Physicians, Century Plaza Hotel, Los Angeles
- Oct. 29-Nov. 2 Association of American Medical Colleges, Biltmore Hotel, Los Angeles

ACS Annual Congress To Be Held in October

The world's largest meeting of surgeons, the 56th annual Clinical Congress of the American College of Surgeons, will be held in Chicago, Illinois, October 12-16. Some 14,000 doctors and guests from throughout the world are expected to attend. The headquarters will be located at the Conrad Hilton Hotel.

The program will include:

- 18 Postgraduate Courses

- More than 260 research-in-progress reports
- Some 60 panel discussions in general surgery and the surgical specialties
- Operative telecasts from a leading Chicago hospital
- Special sessions in graduate education, cancer, trauma
- "What's New in Surgery" resume
- Approximately 450 scientific and industrial exhibits
- Major addresses by the incoming President of the College and selected guest speakers
- More than 50 new films and cine clinics
- Seminars for young surgeons with leading professors of surgery
- Convocation ceremonies for Initiates becoming Fellows of the College
- A new program feature, "The Surgical Environment" will be offered, with three distinguished surgeons in the field: Dr. Harold Laufman, New York; Dr. Carl W. Walter, Boston; and Dr. James V. Maloney, Los Angeles
- The College's Distinguished Service Award presentation
- Presentation of Honorary Fellowships

Fellows of the College whose dues are paid to December 1969 may register free. Non-Fellows pay \$90.00. Doctors in the Federal Services pay \$50.00. Initiates, members of the Candidate Group, and Surgical Residents register free.

Everyone taking one of the 18 Postgraduate Courses must pay the fee for the Course selected. All courses are accredited by the Council on Medical Education of the American Medical Association.

For official registration forms, please contact: Mr. T. E. McGinnis, American College of Surgeons, 55 East Erie Street, Chicago, Illinois 60611.

Conference on Ethics

The Third National Congress on Medical Ethics will be held Saturday and Sunday, September 19-20, at the Ambassador West Hotel in Chicago. Elmer G. Shelley, M.D., Chairman of the sponsoring AMA Judicial Council, has issued an open invitation to all interested physicians.

One of the featured speakers will be Paul Ramsey, Ph.D., chairman of the Department of Religion at Princeton University. He will discuss "Medicine, Ethics, and the Future." Other sessions will include panels and discussion groups.

Registration is free, and advance announcements were sent this spring to officers of state and county medical societies. For additional information, write AMA Department of Medical

Ethics, 535 North Dearborn Street, Chicago Illinois 60610.

Viet Nam MD Volunteers Program Wins PR Award

The American Medical Association was awarded the prestigious "Silver Anvil" trophy for its Volunteer Physicians for Viet Nam program. The AMA entry in the 26th annual competition conducted by the Public Relations Society of America won the top honor in the "International Public Relations" category.

PRSA hosted a banquet in New York City May 14 at which the award was accepted by Norman

W. Hoover, M.D., Director of the AMA Department of International Medicine.

Since 1966, the AMA has recruited over 700 U.S. physicians to serve 60-day tours in South Vietnamese civilian hospitals and clinics. Under an agreement with the U.S. Agency for International Development, the AMA meets a minimum quota of 32 volunteer physicians every two months. Volunteers receive round-trip transportation, housing, and \$10 daily expenses while in Viet Nam.

Physicians interested in serving in this volunteer program should contact the Department of Military Medicine, AMA, 535 North Dearborn Street, Chicago, Illinois 60610.

* * *

INDEPENDENT MEDICINE'S POLITICAL ACTION COMMITTEE—TENNESSEE



Make it a mutual effort, Doctor, because your PAC needs you and you need your PAC. Both AMPAC and each of the fifty state PAC's are voluntary, non-profit, unincorporated, autonomous groups whose members are physicians, their wives, and others. Every group is bi-partisan, bound by no party label. The voting record, platform, and program of a candidate—not his party—is what the PAC considers.

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IMPACT is looking ahead to 1970 when there will be a job to do. Make your voice count by sending your dues today, \$25 for membership in IMPACT and AMPAC. Your wife is invited to join Partners In Politics—Annual dues \$15.

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*Among persons 20% or more overweight as compared with median weight for persons of like height and sex.

1. Kannel, W.B., et al.: *Circulation* 35:734, 1967.
2. Thomas, H.E., Jr., et al.: *Med. Times* 95:1099, 1967.

3. Albrink, M.J., in: Beeson, P.B. & McDermott, W. (eds.): *Cecil-Loeb Textbook of Medicine*, ed. 12, Phila.: W.B. Saunders Co., 1967.

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T M A

THE VIEWING BOX

The AMA—Why Belong?

Hugh H. Hussey, M.D.

The title's question derives from the fact that the Editor of *Clinical Research* has said that he is often asked by his peers—the younger representatives of Academe—about joining the AMA. Presumably, they ask the question in a negative tone—the AMA, who should want it?

The question is not a new one. For years it plagued the founders of the Association until, in 1847, they succeeded in its establishment. Their objectives were clear. They desired to promote medical science (what there was of it) and concurrently to combat charlatanism and quackery (of which there was plenty). They were concerned with the existing programs of medical education (most of which were horrendous). They sought uniformity in the ethics of their profession.

It is reasonable to assume that during the latter half of the 19th century, the question "Why belong?" continued to be asked, but for different reasons than prevail today. Then the non-joiners may have been wondering "What will the Association do to me?" Now, I assume the non-joiners are wondering "What will the Association do for me?" The question can be answered

pragmatically by listing the benefits of membership all of which relate to the Association's original objectives. Another approach is possible.

There are two types of membership in the American Medical Association—active and special. Quoting from the Bylaws of the Association, "Active Members shall be Regular or Service."¹ A regular member is one who holds the rights of membership in his state association and has paid his dues to the AMA (unless exempted). Of course, county association membership is a prerequisite to state association membership (except in places like the District of Columbia, where there are no counties). Service members are physicians in the uniformed services and the Veterans Administration. Definitions of special members are irrelevant to the purpose of this essay.

Some recent accounts have given the impression that the proportion of physicians who are AMA members is shrinking. The true story is that there are currently 208,000 members of state medical societies, of whom 191,000 are regular members of the AMA (+91%). In addition, there are 20,000 service members. Thus, total AMA membership is 217,000—an all-time high.

The total MD population in the United States is about 317,000, of whom more than

TABLE 1—COMMITTEES OF THE AMERICAN MEDICAL ASSOCIATION*
Faculty Status of Committee Members

Division	Number of Committees	Full-time (Dean)	Full-time (Prof.)	Full-time (other)	Part-time	None
Scientific Activities	17	3	49	14	48	40
Health Service	14	2	27	8	33	91
Scientific Publications	10	2	87	8	4	19
Medical Education	7	9	12	3	8	14
Law	5	0	2	1	6	16
Communications	1	0	2	1	6	0
Public Affairs	1				3	9
Totals	55	16	179	35	108	189

*Council, committees, commissions, advisory boards.

47,000 are serving as interns and residents. Few in these groups are likely to be AMA members. This implies that about 53,000 MDs who *might* be eligible to be members of the AMA do not hold membership. Of that number, how many are MD full-time members of medical school faculties?

The answer: no one really knows. It is estimated that about 50% of MDs in Academic are active AMA members, with a range of 20% to 80% among the medical schools.

The estimate of 50% can be partly substantiated by analysis of the Association's committee* structure. In order for a physician to be appointed or elected to a committee of the AMA, he must be a regular member of the Association. At the time of this writing, 55 standing committees can be identified, with a total membership of 527. **Table 1** displays the extent of academic participation on the committees staffed by seven of the Divisions of the AMA. Thus, 230 committee members are full-time academicians, 108 have a faculty appointment of some kind, and 189 have no faculty affiliation. This activity of academicians in the committee structure of the Association is greatly beneficial and influential.

The foregoing exposition of data leaves unanswered the Editor's concern. At the last Teaching Institute of the Association of American Medical Colleges (Colorado Springs, 1962), I identified two groups of physicians—nonacademic practicing physicians and academic practicing physicians—whose different settings in society cause them to have different views of societal problems and therefore different value systems.² At that time, I was considering the potentiality for controversy as a result of their intersection of interest in medical practice. However, even in the absence of overt controversy, it may be that their different view of societal problems explains their failure to be involved in "organized medicine." Perhaps they consider that it has little to offer them, or it may seem inimical to their interests and objectives.

There are other reasons for the failure

of academicians—especially younger academicians—to become "involved." Some are ineligible for county or state society membership because of what I consider anachronisms in society constitutions and by-laws. Lacking "local" membership, physicians are automatically excluded from "national" membership. (As a federation of state, commonwealth, territorial, and insular medical societies, the AMA does not provide access to "direct" active membership except in the instance of "service members.")

At one time, financial considerations may have influenced younger academicians; they may have been unable to afford dues to county, state, and national coffers, the least of which is the "national." Some may still excuse themselves for this reason. When they do so, probably they are expressing disinterest more than lack of funds.

In some areas, local societies may discourage or at least not encourage academicians to obtain regular membership. However, this is probably a minor factor.

There are strong reasons to recruit full-time faculty physicians to membership in the AMA. They are needed in the deliberations of "organized medicine" at all levels—local and national. Their voices may have a different ring than that of the "in-group." So much the better. As Freymann has written, "The genius of the democratic system rests on the ability of opposite extremes to modulate each other. *A strong minority can do this as effectively as a majority.*"³ No better proof can be found than in the *Report of the Commission on Research*.⁴ For years, much to the dismay of the academic community, the AMA had opposed direct Federal support of medical education except in the nature of funds for construction. The Commission on Research had eight members, of whom six were physicians, four of them academicians. Recommendation 13 of the Commission's report stated in part, "The imbalance between biomedical research and education, caused by the heavy, but desirable, Federal support of research, should be corrected by supporting measures that will materially increase both private and public funds for the support of the educational programs of the

*Committee is used generically. The term includes committees, councils, commissions, advisory boards.

medical schools." That "minority voice" prevailed; AMA policy was indeed modulated.

It is too much to hope that anything printed herein will influence academicians, old or young, to join the ranks of "organized medicine." There is another, more effective, influence available. In the spring of 1969, ten Senior medical students from a Chicago medical school visited AMA Headquarters, ostensibly to learn something about the AMA. At the outset, they were openly hostile. They rejected the idea of the formal program that had been prepared. For several hours, they shot questions at staff members of the Divisions of Medical Education, Scientific Activities, and Communications. They left the building not only satisfied that the AMA is dedicated to the purpose enunciated by its founders, but convinced that if the Association has faults, they have an obligation to work *within* "organized medicine" for its betterment.

That experience permits me to conclude with—

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(From *Michigan Medicine*, April 1970)

AMA priority objectives:

Solutions to Nation's Major Health Problem

"WE PLANT TREES today so that others may have shade tomorrow." Burtis E. Montgomery, MD, Harrisburg, Ill., chairman of the AMA Board of Trustees, recently quoted this Chinese proverb to illustrate that the accomplishments of today's physicians and medical societies should include the solution of eight of the most pressing health problems now confronting the nation. As identified by the American Medical Association, they are:

The acute shortage of health manpower—the demand for health care has created an imbalance in the supply-demand equation of health professional and other personnel. Increasing affluence, longer life, greater appreciation of good health care, and such government programs as Medicare and Medicaid have greatly increased the de-

mand. Consequently, the AMA, in cooperation with the Association of American Medical Colleges, is urging all medical schools to expand their enrollments and offers its assistance in establishing new schools. Success of this approach to date is evidenced by 24 new medical schools created since World War II, raising to 101 the total of schools now accepting students. Others are in the planning or construction stage, and most existing schools have increased their enrollment.

The AMA Council on Medical Education is cooperating with attempts of medical schools to reduce the length of medical training and its reviewing the time required by various specialty boards for certification of specialists.

The AMA Committee on Education for Related Health Professions and the AMA Council on Health Manpower are also stimulating a variety of programs to devel-

op new physician's assistants, new health care roles for nurses, and innovative steps to increase total productivity. The Association has adopted essentials of accredited educational courses and accredits programs for 13 different technologies. In addition, it endorses increased federal appropriations for both the schools and individual students.

Rising health care costs—the AMA is working closely with the American Hospital Association and hospital medical staffs to review every item of hospital costs in an effort to remove those items which should be supported by other means. Physicians are also being encouraged to eliminate hospital care or reduce it whenever possible and to use less expensive extended care facilities and home health care services. The AMA is now preparing a public education program to illustrate how unrealistic demands for health care inflate costs.

Financing health care—the AMA supports a national health insurance plan based on tax credits and certificates that would enable all Americans to purchase comprehensive health insurance coverage. Its proposal would establish a sliding scale of tax credits depending on the individual's tax liability, and the credits would be applied to health insurance provided by private carriers.

Mental health—the AMA proposed the program that was enacted by Congress to establish a network of nationwide community mental health centers. The program involves close cooperation with the mental health administration and other experts to discover more efficient methods of treatment and rehabilitation, allowing a quicker return to productive work by the patients.

Pollution—the AMA Council on Environmental and Public Health has held several national conferences on the problem of pollution of the air, waterways and the land, and it is working closely with governmental and private agencies to ameliorate this growing health hazard.

Alcoholism and drug addiction—the widespread use of alcohol has been accompanied by millions of medically identifiable alcoholics. They suffer a type of drug addic-

tion which requires medical therapy and which is the cause of 50 per cent of all fatal accidents and innumerable criminal acts. Consequently, the AMA Committee on Alcoholism and Drug Dependence continues to conduct a major educational program in this area, directed at both adults and youths.

Health care of slum residents—the AMA Committee on Health Care of the Poor, recognizing that the problem of health care in the slum is basically a problem of the slum itself, is conducting a series of studies and conferences with civic and social leaders, and it is preparing specific recommendations to improve both the quality and delivery of health care in these areas.

Malnutrition—poor nutrition is more far-reaching than most people suspect. It covers not only the underprivileged, but also the middle-income group and relates strongly to education at all levels of society. The AMA has adopted an aggressive program to fight hunger and malnutrition; local societies are being encouraged to meet with community dietitians, dentists and other health specialists in resource seminars and to participate in area health surveys.

In addition, the AMA will publicize guidelines for the evaluation of malnutrition, examine the science of nutrition as part of formal medical education, seek development of a central coordinating agency for nutrition at a high level in the executive branch of government, urge development of urban and rural programs to provide health services with a nutritional emphasis, and evaluate current nutritional education in schools.

Doctor Montgomery, speaking in behalf of the AMA Board of Trustees, has asked each medical society to help implement these programs at both the state and local level. "Everything physicians do today to help find solutions to these eight major health problems will affect, in large or small part, what physicians of tomorrow will be able to accomplish," he said.

(From the Rocky Mountain Medical Journal, January 1970)

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amebiasis
anthrax
bacillary dysentery
bartonellosis
bronchitis
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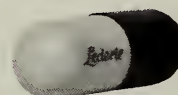
brucellosis
chancroid
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endocarditis
genitourinary
infections
gonorrhea
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Instructions to Contributors

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Bibliographic references should not exceed twenty in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to the style used in the American Medical Association publications, as,—Alais, F. G.: What Is Known About it, J. Tennessee M. A., 35:132, 1950.

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If reprints are wanted, the desired number should be indicated in the letter accompanying the manuscript. No reprints are provided free and a reprint cost schedule will be forwarded upon request.

The authors illustrate beautifully the values of continuous electrocardiographic monitoring of patients during the activities of daily living.

Ambulatory Electrocardiographic Monitoring

CRAWFORD W. ADAMS, M.D., and ROBERT G. KIGER, M.D.,* Nashville, Tenn.

The Holter technique¹ of dynamic electrocardiographic monitoring continuously records the process of depolarization and repolarization of the heart on electromagnetic tape during daily activities. The 10 hour recording is then analyzed on a scanning computer in 10 minutes. This procedure has the advantage of observing cardiac performance over a preselected 10 hour period of the day or night, while simultaneously correlating symptoms or events on a report card.

The clinical applications of continuous electrocardiographic monitoring are numerous. Cardiac arrhythmias and other intermittent electrocardiographic abnormalities may be documented during work, recreation, sleep, or eating. Intermittent pacemaker failure, arrhythmias, competitive rhythms, and syncope are frequently detected by continuous electrocardiographic monitoring. Following an acute myocardial infarction or open heart surgery, a more successful program of rehabilitation can be outlined if cardiac performance is evaluated by dynamic electrocardiographic monitoring. Industry encourages this method of evaluation before the patient returns to his former occupation. Although an established procedure in specialized cardiac care units, dynamic electrocardiographic monitoring affords several advantages after discharge from the coronary or intensive care area. Detection of insidious ventricular irritability during early ambulation before the development of a fatal arrhythmia more than justifies the universal use of this equipment.

The following reports demonstrate the

advantages of ambulatory electrocardiographic monitoring.

Case 1. A 52 year old male merchant had a typical chest discomfort for 6 months prior to an episode of syncope. The electrocardiogram was normal. Continuous tape monitoring 24 hours after admission to the hospital demonstrated intermittent progressive lengthening of the P-R interval. Although atropine reversed the degree of block, 4 days later an ECG demonstrated an acute inferior myocardial infarction. (Fig. 1.)

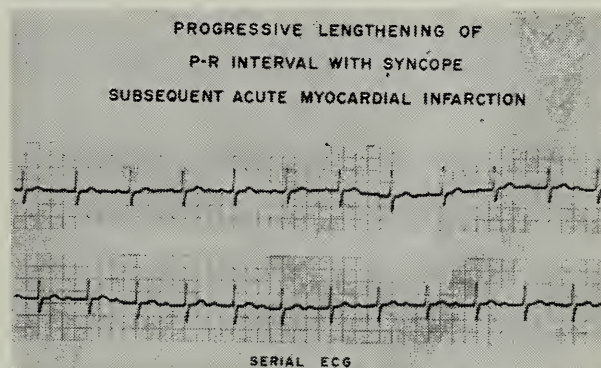


Fig. 1

Case 2. A 46 year old white laborer had intermittent chest "discomfort" atypical of angina pectoris. On several occasions the "discomfort" followed excitement and anger. Serial resting and postexercise electrocardiograms on several occasions were interpreted as normal. While sitting quietly and reading, a nodal rhythm was observed during continuous monitoring. Thirty minutes later while watching an exciting television program he had chest "discomfort." At this time the monitoring tape demonstrated T-wave inversion due to acute ischemia. (Fig. 2.)

Case 3. This 52 year old white merchant complained of recurrent palpitations, pleuritic chest pain, intermittent fever and hemoptysis of 2 months duration. There was a past history of chronic pancreatitis, but no history of cardiac disease. Serial roentgenograms of the chest suggested intermittent pulmonary emboli. A 10 hour tape recording revealed intermittent atrial flutter as the cause of palpitation. Atrial thrombi were suspected as the site of embolization. Marked

*From the Department of Medicine, Vanderbilt University School of Medicine, Nashville, Tenn.

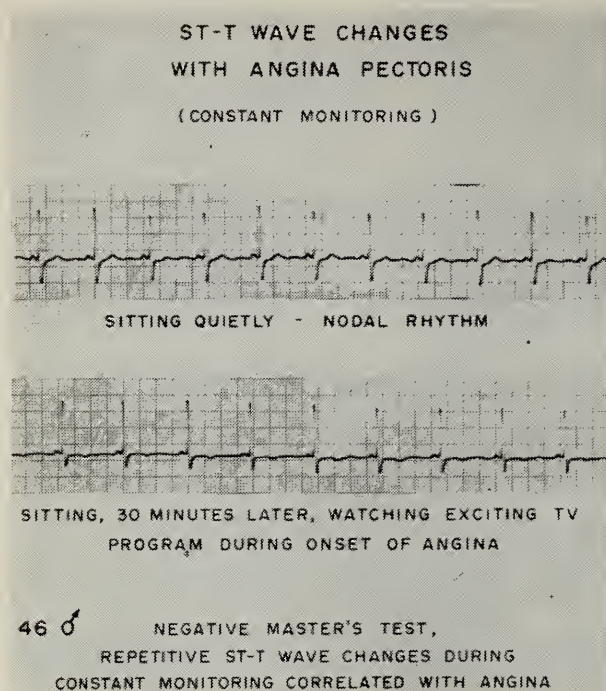


Fig. 2

ST-segment depression suggested ischemia. The patient died following a massive pulmonary embolus. The postmortem examination revealed primary carcinoma of the pancreas with abdominal metastasis. The coronary arteries were normal. (Fig. 3.)

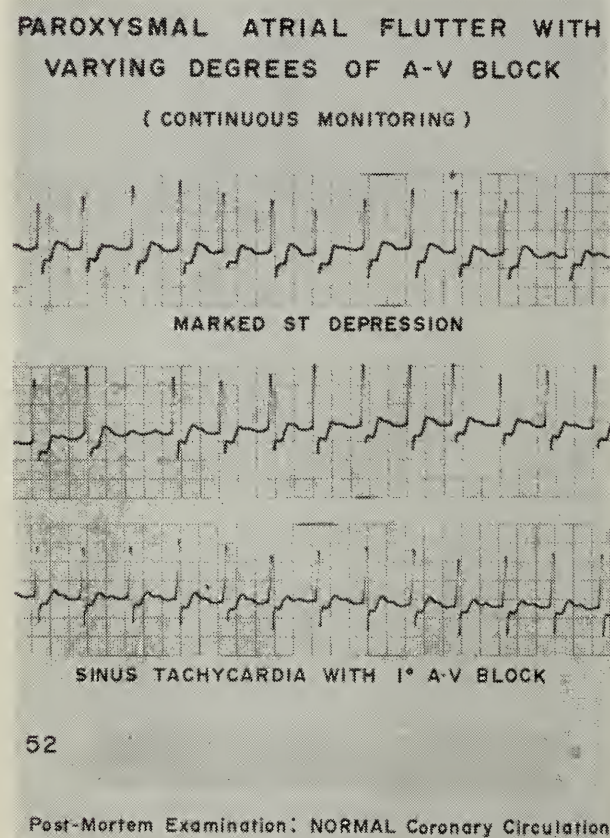


Fig. 3

Case 4. A 42 year old housewife with mental

depression was given nortriptyline hydrochloride (Aventyl Hydrochloride) 25 mg every 6 hours. After one week, she complained of intermittent palpitation. The continuous tape recording showed intermittent sinus tachycardia with multiple premature atrial contractions. Four hours after administration of nortriptyline, the continuous electrocardiographic recording demonstrated a regular sinus rhythm. In this instance the maximal effect of nortriptyline on the cardiovascular system was less than 4 hours. (Fig. 4.)

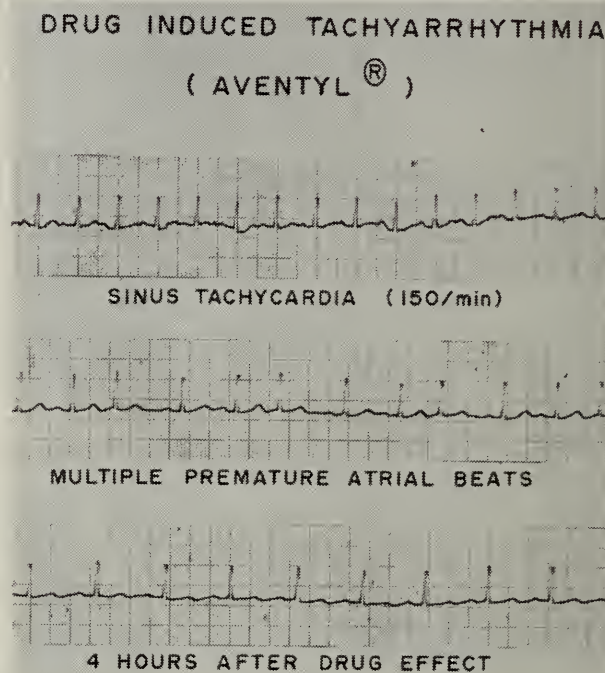


Fig. 4

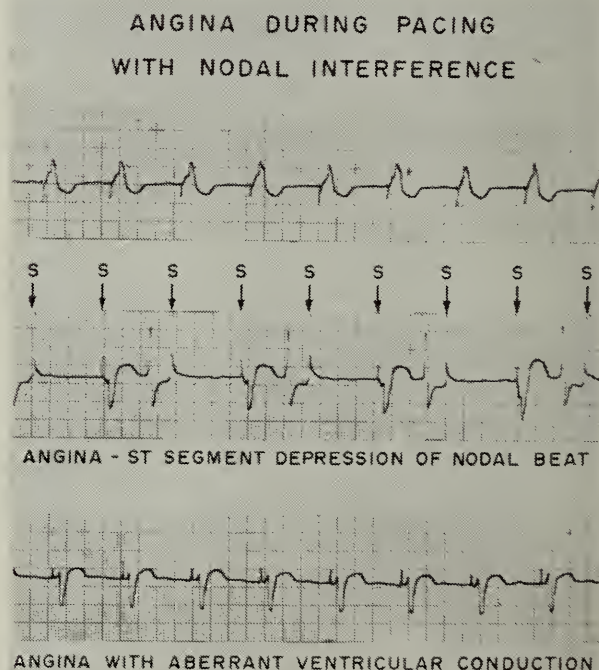


Fig. 5

Case 5. This 72 year old farmer developed complete heart block following an acute myocardial infarction. A fixed-rate pacemaker was implanted permanently. One year later he developed recurrence of angina with intermittent irregularity of the pulse. The 10-hour continuous monitoring tape demonstrated nodal interference with pacemaker activity followed by marked ST-segment depression and angina pectoris. Replacement of the fixed-rate pacemaker with a demand pacemaker prevented nodal interference and capture of ventricular conduction. The angina disappeared. (Fig. 5.)

Case 6. A 67 year old retired car salesman had tightness in the chest walking up his slightly inclined driveway. The Master's double two-step test showed normal cardiac performance to exercise. Ambulatory cardiac monitoring demonstrated bradycardia and ST-segment and T-wave changes consistent with acute ischemia. At the time of the electrocardiographic changes "tightness in the chest" was recorded on the report card. (Fig. 6.)

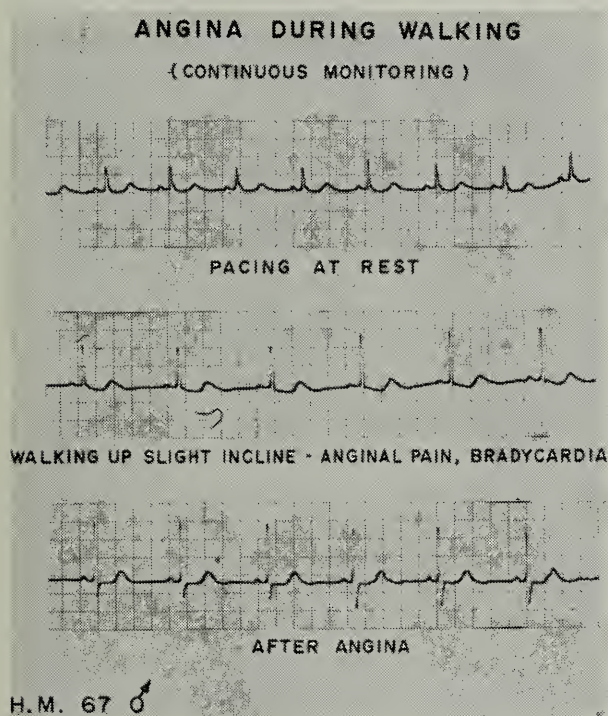


Fig. 6

Case 7. A 10 year old boy had complete repair of a tetralogy of Fallot. A permanent fixed-rate pacemaker was implanted with the leads inserted into the ventricular myocardium because of congenital complete heart block. The repair effected normal peripheral arterial saturation. Six months later he developed an intermittent irregular pulse. Ambulatory monitoring demonstrated failure of the pacemaker. (Fig. 7). Its Replacement corrected the difficulty.

Case 8. This 83 year old woman with Adams-Stokes syndrome due to complete heart block had a fixed-rate pacemaker implanted surgically.

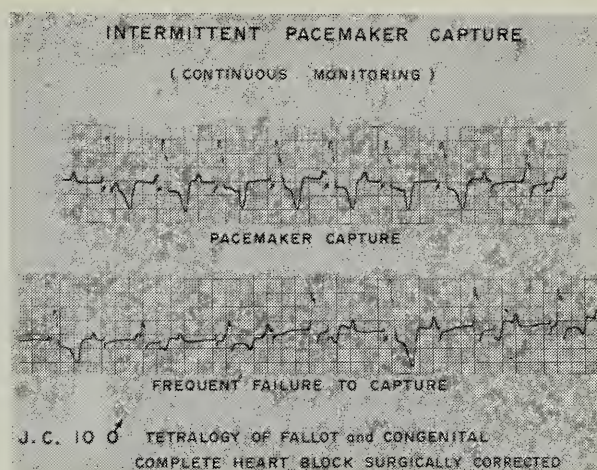


Fig. 7

After 2 years the patient developed an episode of syncope, and the routine ECG demonstrated normal pacemaker function. Continuous 10-hour tape monitoring showed ventricular interference with stimulation of the pacemaker during the "vulnerable period" of ventricular repolarization, initiating paroxysmal ventricular fibrillation at the time of syncope. After replacement of the pacemaker, the patient had no further difficulty. (Fig. 8.)

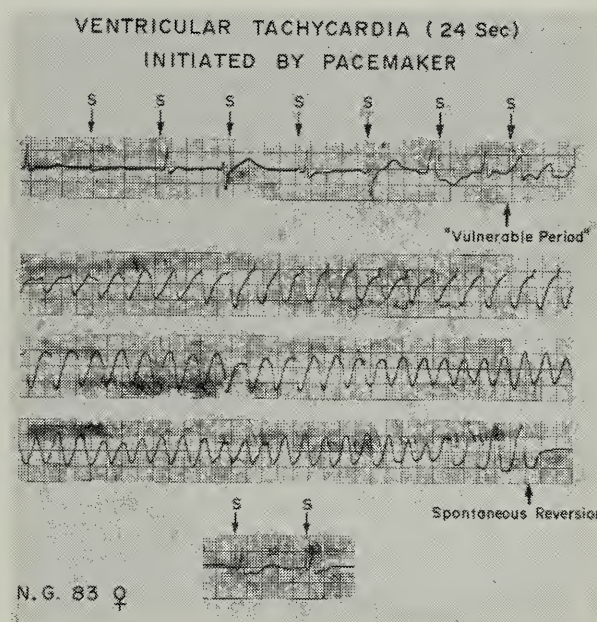


Fig. 8

Conclusion

Utilizing the Holter technique with 10-hour continuous tape monitoring, detection of phantom arrhythmias and underlying Ischemic heart disease have been demonstrated. Several case reports illustrate the advantages of this technique during ambulation.

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Here one may review something of the development of the uses for blood transfusion, its techniques, and procurement of blood stores.

The Surgeon and the Blood Bank*

H. WILLIAM SCOTT, JR., M.D.,† Nashville, Tenn.

My real reason for accepting this assignment is to have the opportunity to thank all of you. You have provided a life-line support system for all surgeons in this region and their patients. The value of your work has been and continues to be truly incalculable. On the part of all surgeons, especially those of this region of the country, and our patients, we thank you and we are most appreciative of your excellent work.

The development of modern technics of blood typing, cross-matching, blood preservation, and blood banking clearly represents the greatest achievement of this century in the management of hemorrhagic shock.

Dr. John Flexner, who introduced me so smoothly, does not know how uniquely qualified I am to make a few comments about surgeons and blood banks.

First of all, I had a medical school classmate named Landsteiner, a name familiar to all of you as the pioneer research scientist who identified the A, B, O human blood types over 50 years ago and established the basis for the safe use of blood transfusions in general. I hasten to add that my classmate was the great Karl Landsteiner's son, Ernie, who is now a prominent urologist. However, through Ernie Landsteiner I began my career as a blood donor, although I have ultimately become a consumer. As a first year medical student, Ernie helped me to get on the professional donor list of his father's friend, the eminent hematologist and Nobel laureate, Dr. Murphy, who shared with Dr. George Minot a Nobel prize for their work on pernicious anemia. Thus, I began my career in a blood procurement program as a donor. I not only had my blood drawn on many occasions by a

Nobel prize winner but received as much as \$75 a pint in those depression days. At the time, we all believed that Dr. Murphy received at least \$500 for giving each pint of our blood to his patients!

Secondly, I started out in a surgical internship just before World War II and had the opportunity to see the tremendous changes in patient care that came with the development of hospital blood banks, then the American Red Cross national blood procurement and distribution program, and the subsequent implementation of the NIH and National Research Council's safety standards in blood procurement, preservation, and handling.

Before World War II and the development of blood banks, very little blood was used in management of hemorrhagic shock or in its prevention during surgical operations. In massive surgical cases, donors were called in individually by the surgical intern and typed, then cross-matched with the patient, and if compatible, blood was drawn on the day of operation to correct shock from blood loss. The idea of prophylactic blood on hand for transfusion to prevent the occurrence of shock or to correct traumatic or operative blood loss was limited in our concepts at the time to a volume of about 500 cc to any one patient at any one time. The thought of giving more was simply out of the question. For one reason, it was not available, and secondly, there was a general lack of appreciation of the concept of volume for volume replacement of blood loss.

I can recall vividly the first blood which I drew for transfusion of a patient during operation. As a fourth year medical student, I was substituting as a neurosurgical house officer at the Massachusetts General Hospital. The late Dr. Jason Mixter, an eminent neurosurgeon at the Massachusetts General, did a laminectomy on a patient who had a large vascular hemangioma of the lumbar spine. I had been told by the

*Presented at the Annual Meeting of the Middle Tennessee Blood Bank Association, Nashville, Tenn., April 10, 1970.

†From the Department of Surgery, Vanderbilt University Medical Center, Nashville, Tenn.

resident (Dr. William Sweet) that we might need to transfuse the patient and that I might have to drop out of the operation to go get the blood. When Dr. Mixter exposed the tumor, projecting up behind the terminal spinal cord, it was pulsating and looked almost like an aneurysm. Dr. Mixter looked at all of us who were members of the team and said, "All right, boys, we are going to get our feet wet," and he bit off a portion of the large vascular tumor with a large rongeur. There was immediately the most massive hemorrhage I had ever seen. The resident looked at me and said, "Scott, go get the blood." I dropped out, ran down many flights of stairs to the emergency service where there was a small bleeding area. A donor had been cross-matched with the patient and was available.

A nurse in the unit told me what to do and gave me a large 14 gauge needle. I tremblingly stuck it into the donor's vein without benefit of Novocain, drew the blood, and then was scared to death that I was going to drop the bottle as I ran back up to the operating room where I had to put in an intravenous infusion line underneath the drapes with the help of the anesthetist and give the transfusion. Surprisingly, the patient survived.

A bit later in my early training as a surgical intern at the Boston Children's Hospital, I ran a blood bank for the surgical service, as did each intern as he came along through the program. Our bank consisted of the icebox in the treatment room on one of the surgical floors. We drew blood, kept it in the icebox, and used it in our small patients as needed. After one week, it was our job to go to the bacteriology laboratory, borrow its centrifuge, and spin the blood for plasma. The plasma was also kept in the icebox in the treatment room, and we gave a great deal of it to our small patients. This was considered strictly an intern's job, and the residents paid very little attention to the way we carried it out. In retrospect, it is amazing that any of our patients survived.

It was the work of the late Dr. Alfred Blalock, formerly Professor of Surgery at Vanderbilt and latterly at Johns Hopkins, work which was done in Nashville in the

Vanderbilt Medical School's former small surgical research laboratory, which demonstrated very clearly the importance of volume replacement in hemorrhagic and hypovolemic shock and the need for using blood in truly adequate amounts in replacement of volume deficits to restore circulatory function. Dr. Blalock's work in the years leading up to World War II led to the use of large volumes of blood and plasma in the treatment of wounded men in World War II and to the large scale blood procurement and preservation programs of the Army, Navy, and Red Cross during the war, to the establishment of hospital and community blood banks, and finally in the post-war period to the national Red Cross blood program with which we are all so familiar.

There was some mistrust of bank blood by clinicians in the early postwar period, and it was thought by many to produce more pyrogenic reactions and more hemolysis than direct donor transfusions. At Johns Hopkins Hospital in 1946, the late great neurosurgeon, Dr. Walter Dandy, a very frightening man to students and residents, never accepted the hospital's blood bank. He always had a donor brought in to the operating room for direct transfusion when his patients needed blood. Often the emergency need resulted in Dr. Dandy's resident making a quick slash across the antecubital space of the donor without local anesthetic so as to cannulate either an artery or vein, whichever he found most quickly, to draw the blood which often was so desperately needed by the patient on the operating table.

But all of this is behind us. The tremendous growth in the Red Cross blood procurement and distribution programs of the last 20 years is well known to all of you, and it has paralleled the enormously increased use of blood and blood products throughout the country. Through the years we have learned to use blood more intelligently, I believe, and more carefully with stricter attention to specific indications. A great number of blood substitutes and plasma expanders have been developed and are available now in emergency supplies to treat hypovolemic shock on an emergent basis until blood can be typed and cross-

matched and made available. The work of Shires and his associates has emphasized the importance of using sodium and electrolyte-containing solutions, such as Ringer's lactate, to replete the shrinking interstitial fluid volume which accompanies blood loss in addition to volume replacement with blood. Despite the pendulum swing which has caused an enormous increase in the use of lactated Ringer's solution in treatment of hemorrhagic shock, both in Vietnam and in civilian practice, blood remains the fundamental ingredient which is needed in the ultimate correction of massive traumatic and surgical blood loss.

In clinical surgery, we have learned to call on you to make blood available to protect the patient against unexpected bleeding during elective operations. We have learned to make every effort during the conduct of a surgical procedure to avoid blood loss by careful hemostasis, but we are no longer willing to undertake a major surgical resective procedure on an elective basis without the availability of an adequate amount of blood to provide the available protection necessary for the patient's safe conduct through the operation. The emergency situations in which massive demands on the blood bank for large volumes of blood to replace large and continuing losses of blood are well known to you. Some examples of clinical surgical problems which cannot be handled without massive emergency blood procurement and administration are the familiar problems of the traumatic rupture of the liver from the ubiquitous automobile accidents of today, traumatic rupture of the diaphragm with laceration of the inferior vena cava, ruptured abdominal aortic aneurysms, and the like. In these situations, 20, 30, or more pints of blood are often necessary, as you know, to pull the patient through the repair of his injuries or correction of his disease problem. Another familiar and devastating example is the problem of a massive bleed from a duodenal ulcer in a patient with hemophilia. These are problems that turn the collective hair of hematologists, sur-

geons, and blood bank workers rapidly gray.

We surgeons have come to depend on you people, especially those of you who are connected with the Red Cross program, to a degree which is almost analogous to our dependence on a sanitary water supply, and that analogy bears a closer look. I fear we have had an increasing tendency to take you and your work for granted as a part of the proper scheme of things very much as we take for granted the availability of a pure and totally adequate sanitary water supply. When you cannot provide the needs which we think our patients require on an emergency or on an elective basis, we tend to grumble and growl at you, and we realize at such times that your job in dealing with a product which can be obtained only from human beings is a great deal more difficult and less controllable than that of the sanitary engineers who provide us with pure water. And yet, both you and we as surgeons know that people still get hit by trucks on holidays, Christmas morning, Thanksgiving afternoon, and at other times when we are prone to see a problem in supply of blood clearly related to the human factor in blood procurement.

I know the Christian principle of "turn the other cheek" to be a marvelous guiding influence on many lives, and this pervasive influence underlies the concept of the Red Cross blood procurement program. However, we surgeons used to work regularly and steadily to get families of patients to serve as donors and pay back in full, and at times overly, blood drawn from the blood bank for the use of our patients. The Red Cross and the group of you have done such a good job in recent years that I fear surgeons have sadly reduced their efforts to procure donors from the families of their patients. As surgeons, we and our patients need your help continuously. I invite you to prod us into getting our shoulders behind the wheel in procurement of donors and have us give you more help than we have given you in the past and than we give you now!

CASE REPORT

GONADAL DYSGENESIS:

A Naturally Occurring Experiment In Sexual Organogenesis

Arthur T. Fort, M.D., and
Melvin K. Bottorff, M.D.,* Memphis, Tenn.

Introduction

The phenotypic human female presenting with primary amenorrhea, infantile internal genitalia, and streak gonads offers not only a diagnostic challenge, but a rare opportunity to confirm certain principles of sexual organogenesis derived from experimentation in laboratory animals. These principles are equally useful in understanding man or animals, and since experimentation is inconceivable in human embryos, we must take advantage of experimental conditions provided by nature to verify these principles in humans. We will present a case of pure gonadal dysgenesis occurring in an individual both phenotypically and genotypically female. She will serve as an example of one sub-division of the gonadal dysgenesis syndrome to help illustrate an important principle of sexual organogenesis applicable to all gonadal dysgenesis and which we think will be useful to the clinician.

Case Report

Briefly, the following case report presents an example of pure gonadal dysgenesis.

A 23 year old white female registered nurse presented with a chief complaint of primary amenorrhea.

The patient was immediately striking by her height of 5 feet 10 inches and weight of 169 pounds. On examination she exhibited a slightly eunuchoid habitus, undeveloped breasts and a moderate amount of pubic hair. The external genitalia were female in character but slightly undeveloped. The introitus was virginal, the vagina supple with moderate length and containing a hypoplastic cervix. On rectovaginal examination, a very small uterus was palpable. Ovaries could not be palpated. A vaginal smear for maturation index revealed extremely poor estrogen effect. The patient did not have withdrawal bleeding after administration of progesterone.

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A skull film, protein-bound iodine (PBI), and glucose tolerance test all were within normal limits. A buccal smear was 30% sex chromatin positive. A leukocyte culture yielded cells of pure XX sex chromosomal constitution; thus this patient is a pure genetic female. Urinary gonadotropins were greater than 100 uterine mouse units indicating a definitive elevation. At culdoscopic examination the gonads could not be visualized satisfactorily.

Laparotomy revealed the uterus and fallopian tubes to be quite hypoplastic but normal in contour. The gonads were represented by bilateral pale-white streaks in the usual position of the ovaries. Biopsy of the streaks showed only fibrous stroma resembling ovarian stroma. No primordial follicles or corpus luteum were seen.

Discussion

A brief resume of the embryology of sex differentiation is necessary to understand the pathology of gonadal dysgenesis. The primordial germ cells can first be identified in the three to four week old embryos, where they are embedded in the dorsal yolk sac epithelium. They migrate by ameboid-like activity at four to five weeks gestation through the mesentery of the gut, to that part of the genital ridge destined to become the gonad.¹ The germ cells are the only sources of ova and sperm.

Animal experiments show that destruction of the area of origin of the germ cells, and thus the destruction of the germ cells themselves, prior to the time of migration reveals the germ cells are not subsequently found in the gonad and the gonad does not develop normally. If the gonadal analage is transplanted before the arrival of germ cells, it fails to develop. If the gonadal analage is transplanted after the arrival of primitive cells, a typical gonad develops in its new location. Therefore, the gonad is dependent on the primitive extraregional germ cells for its development.²

The testis and ovary are derived from the indifferent gonad. The testis is chiefly derived from the primary sex cords of the primitive medulla, the cortex being isolated at an early stage by the tunica albugenia. In ovarian development, the primary sex cords recede toward the hilum and the cortex makes the major contribution to the bulk of the mature ovary.³

The genital ducts are those internal genital structures which are derived either

from the mullerian or wolffian primordia giving rise, respectively, to female and male reproductive tracts.

Figure 1 shows the embryonic differentiation of male and female genital ducts from the wolffian and mullerian primordia. The first diagram represents the indifferent stage depicting the bipotential gonad, the large mesonephros, the mullerian duct medially and the wolffian duct laterally. The third diagram reveals the development of the mullerian or female duct system. The gonad has differentiated into an ovary and the mullerian ducts into fallopian tubes, uterus and upper one-third of the vagina. The wolffian duct system has involuted with the remnants barely visible.

The second diagram represents the normal differentiation of the male or wolffian duct system. The gonad has differentiated into a testis and the wolffian body and ducts

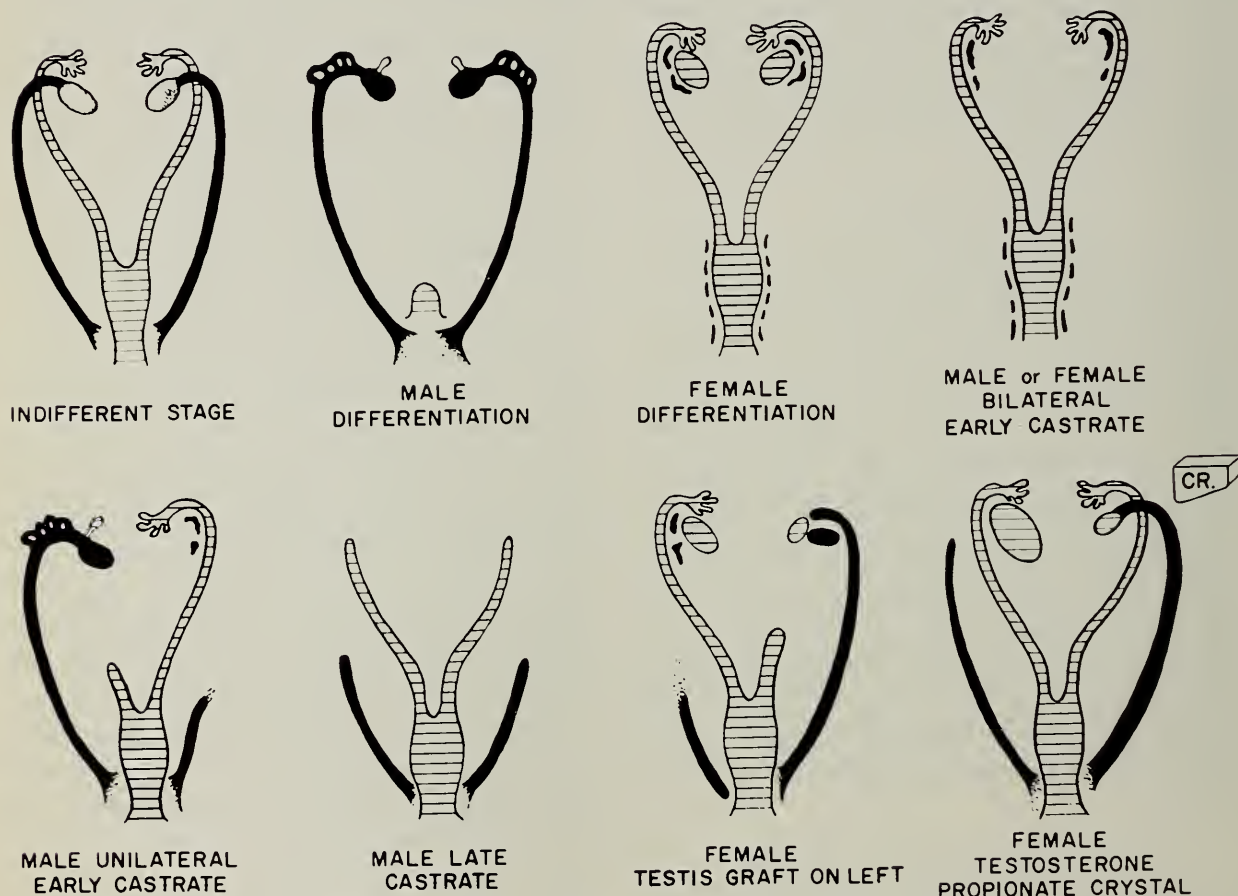
into the epididymis, aberrant ductules, vas deferens and seminal vesicles.

The external genitalia will inevitably feminize unless there is exposure to androgen before the twelfth fetal week. In normal male development, external genital masculinization results from androgen derived from the Leydig cells of the fetal testes. The external genitalia of a female fetus will likewise exhibit masculinization if exposed before the twelfth week to androgen from the maternal circulation, or, in the case of adrenal hyperplasia, from the fetal adrenal gland.

The classical experiments of Jost⁴ in rabbit embryos before and during the period of duct differentiation, as illustrated in figure 1, demonstrates the paramount role of the fetal testes in determining the direction of genital duct development.

To reiterate, the first diagram shows the

Figure 1
THE OVARY



Schematic illustration of Jost's work. (From Williams' Textbook of Endocrinology, ed. 4, 1968,

Figure 8-14 on page 554. Reprinted with permission.)

gonads, mullerian ducts and wolffian ducts at the early indifferent stage. In the presence of functional fetal testes, as illustrated in the second diagram, the mullerian structures involute while the wolffian ducts complete their development. In the absence of testes, the wolffian ducts always degenerate and the mullerian structures mature into a normal uterus and fallopian tubes. This is illustrated in the third diagram. Female development is not contingent on the presence of an ovary, since equally good development of the uterus and tubes will take place if no gonad is present. This was proven by Jost by the removal of the gonads of genetic male and female rabbits before the period of duct differentiation. This resulted in the development of the mullerian duct system regardless of the genetic sex of the individual, as illustrated in the fourth diagram.

The lower right diagram reveals the effects of local application of androgen resulting in wolffian duct stimulation, but no inhibitory effect on the mullerian elements. The systemic administration of androgens to an early embryo fails to duplicate the action of the fetal testis. For this reason, most authorities believe that the fetal testis secretes a "*duct organizing substance*" which is nonsteroidal and distinct from ordinary androgens.

That some type of secretion from the fetal testis is the decisive factor in the differentiation of genital ducts has been abundantly confirmed in humans with various forms of hermaphroditism. In true hermaphrodites who have testis on one side and an ovary on the other, male ducts are present on the side of the testis and female ducts on the side of the ovary. Thus, this "*duct organizing substance*" must exert its influence locally and unilaterally.

The principles that Jost so brilliantly demonstrated in the rabbit embryo also applies to humans. The humans with gonadal dysgenesis represent this principle since in essence they have been denied a gonad. Thus, all humans with rudimentary or streak gonads, regardless of genetic sex, should be found to have a mullerian derived genital tract represented by fallopian tubes and uterus, and female external geni-

talia. These patients, since they have no estrogen production, will be amenorrheic and the uterus, fallopian tubes, and breasts will remain undeveloped past puberty. A review of the literature of case experience with gonadal dysgenesis shows this to be true, and furthermore the sex chromosome patterns range from pure XX to XO through various mosaics to pure XY. Therefore, no matter what the genetic sex of the human cases of gonadal dysgenesis, the patients all had mullerian derived internal genitalia, female external genitalia and streak gonads. No estrogen secretion from these streaks results in primary amenorrhea and infantile or undeveloped fallopian tubes, uterus and secondary sex characteristics.

The most common example of gonadal dysgenesis is the Turner's syndrome. These patients have an XO sex chromosome constitution. They also have several associated classic somatic alterations such as short stature, web neck, cubitus valgus and others. The internal genitalia is mullerian derived and they are phenotypically female with gonadal streaks. With an XO chromosome constitution, these individuals are, in essence, neither male or female genetically and thus, practically speaking, have been denied a gonad.

The patients with "*pure gonadal dysgenesis*" have gonadal dysgenesis alone with no other associated somatic abnormalities. These individuals are usually eunuchoid, with undeveloped secondary sex characteristics and usually have sparse pubic and axillary hair.

As to the etiology of gonadal dysgenesis, only theory can be offered. It can be postulated that the germ cells of the embryo never arrived at the gonad, or if they arrived they were destroyed before having induced the gonad to differentiate into ovaries or testes. Whether this is congenital or acquired is also unknown. Obviously there is no means of proving what destroyed the germ cells, but it is conceivable that some viral infection or drug might be culpable.

Therapy is directed at enhancing the patient's secondary sexual development. Cyclic sex steroid treatment is given in quanti-

ties sufficient to stimulate development of the breast. The majority of patients will menstruate as well on this therapy. Our patient is on a sequential birth control pill plus 1.25 mg. of conjugated equine estrogens. The conjugated estrogens were added to increase development of the breasts. There is no reason that these individuals cannot participate normally in coitus.

Summary

One additional case of gonadal dysgenesis is presented and characterized by primary amenorrhea, phenotype of a female with an infantile mullerian derived genital system and streak gonads. This particular patient is characterized as one of pure gonadal dysgenesis because she has no

somatic abnormalities. The etiology whether hereditary or acquired remains obscure. The proper management is adequate explanation to the patient as to the nature of her disease and adequate estrogen replacement.

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* * *

Does World Whirl Toward Full-Scale Famine By '75?

We were warned in 1798: "Population, when unchecked, increases in a geometrical ratio. Subsistence increases only in an arithmetical ratio. A slight acquaintance with numbers will show the immensity of the first power in comparison of the second."

The alarm, terrifying in its simplicity and import, came from England's famed political economist T. R. Malthus. It was little heeded.

Only one hundred and seventy years later, physicist-writer C. P. Snow, in a lecture at Westminster College, remarked: "I have to say that I have been nearer to despair this year, 1968, than ever in my life. We may be moving—perhaps in ten years—into large scale famine. Many millions of people are going to starve. We shall see them doing so upon our television sets."

The number of people on earth has grown with Malthusian speed. There were only 250 million people living at the time of Christ. It took all of sixteen centuries for that population to double to 500 million people. At the rate we are going now, it will take only about 25 years for our present

population of 3½ billion people to double to 7 billion.

Food supplies lag far behind. The world's production of food today is not adequate—in quantity or quality—for even 3½ billion people. To feed another 3½ billion hungry mouths only 25 years from now will require enormous increases in food supplies.

Population biologist Dr. Paul Ehrlich of Stanford believes "it is already too late to prevent a drastic rise in the death rate through starvation." Others predict full scale famine by 1975.

In spite of warnings, the world seems to have been taken by surprise. People of every nationality and economic circumstance now face a common enemy, for widespread famine endangers nothing less than civilization itself. As Ehrlich puts it, "... saying that the population explosion is a problem of underdeveloped countries is like telling a fellow passenger 'your end of the boat is sinking.'"

To solve the world food crisis, if it can be solved, extraordinary efforts will have to be made to develop and implement an advanced food technology. (*Syntex Corporation—Annual Report* from the Journal of the Medical Association of the State of Alabama.)

CASE REPORT

OSTEOPETROSIS*

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Osteopetrosis is characterized by Walsh¹ as an exceedingly rare disease with the clinical features of spontaneous fractures, anemia, and blindness. The name of Albers-Schonberg has been associated with this unusual disorder of bone formation since he made a radiologic diagnosis of what he termed "marble-bone disease" in 1904. This was the first demonstration of the disease in a living person.² The recent occurrence of a case of osteopetrosis in which the progressive loss of vision could be documented, a probable cause demonstrated, and operative intervention carried out has prompted this report.

Case Report

A 16 year old white boy presented to the Mid-South Lions Eye Institute requesting cosmetic surgery to correct a marked ocular deviation. There was a past history of poor vision in the right eye for many years, and a long standing exotropia which had become more pronounced over the preceding 12 to 14 months. The patient further stated that he had had several fractures, including one of the humerus at age 10, assorted rib fractures, and a recurrent hip fracture which had led to an open reduction 3 years before. The fracture of the arm was the result of throwing a baseball, while the rib fractures and the original hip fracture were football injuries. He had been told that he had "chalky bones."

An ophthalmologic examination had been done 6 years before by another examiner. The right eye, although amblyopic at that time, had 20/60 vision, the left eye had 20/20 vision, and there was no evidence of optic atrophy in either eye.³

The patient's mother stated that an older son, a half-brother to our patient, had a similar problem, had also sustained numerous fractures, but was gainfully employed and well at that time. The mother had been told that the bones of her lower extremities showed evidence of the same disease process, though she had never had a fracture.

Physical examination of the patient showed an alert, cooperative, and apparently healthy young boy with best corrected visual acuity of light perception only O.D. and 20/20 O.S. On the

right side there was exotropia of 35 prism diopters in all positions of gaze. The pupils were 6 mm in diameter, round and regular. The right pupil reacted poorly to light but normally to accommodation and exhibited a normal consensual reflex. There was a paradoxical response to light when the eyes were illuminated alternately, with the right pupil dilating momentarily on light stimulation. The left pupil was normal. The ocular media were clear. The fundus of the right eye showed total primary optic atrophy and nothing more. The fundus of the left eye showed definite optic atrophy with a pale disc and paucity of small nutrient vessels. Central and peripheral fields of the left eye were within normal limits.

Radiographic examination of the skull, thorax, and lower extremities revealed findings consistent with the diagnosis of osteopetrosis. The optic foramina showed bilateral encroachment with the greatest diameter of the right 3 mm and that of the left 4 mm.

With documented evidence of progressive visual loss and the demonstration of bony encroachment on the optic nerves at the foramina, consideration was given toward neurosurgical intervention. After neurosurgical evaluation was completed, it was thought that operative intervention on the side with total optic atrophy would be futile, but that a surgical attack on the better side was indicated.

In June of 1969, a left foramenotomy was carried out under general anesthesia and with the aid of an operating microscope. There was some focal seizure activity in the early post-operative period and the patient was discharged within 10 days on diphenylhydantoin (Dilantin). There was no seizure activity after one month, and the Dilantin was discontinued after 3 months.

Ophthalmologic evaluation 6 weeks after operation showed no change in visual acuity and a small generalized constriction of the field. This finding was not present at the time of examination one month later. Eight months after operation the central and peripheral fields were full, and the visual acuity remained at the preoperative level.

Discussion

Less than 250 cases of osteopetrosis had been reported by 1964. There is no racial or sex predilection, and the diagnosis may be made *in utero* by radiographs or go unnoted until late in life. The mode of transmission is not entirely clear. There may be a recessive form associated with the severe or malignant type and a dominant form associated with the mild or benign variety.^{4,5} Characteristics of this syndrome other than optic atrophy, fractures, and anemia include dental caries with secondary osteomyelitis

*Read at the meeting of the Tennessee Academy of Ophthalmology and Otolaryngology, April 10, 1970, Memphis, Tenn.

of the mandible, facial paralysis, and deafness. The latter two manifestations are apparently due to encroachment of bone on the 7th and 8th cranial nerves at their foramina. However, the neuroforamen which is most frequently involved is apparently the optic one.⁶ Anemia is due to the exclusion of marrow by abnormal bone, and extramedullary hematopoiesis associated with hepatosplenomegaly is often seen.⁴ Mild to moderate exophthalmos secondary to encroachment of orbital space by abnormal bone is encountered.⁵ Severe exophthalmos in a neonate with osteopetrosis was reported in 1964. Tarsorrhaphy was necessary, and optic atrophy was detected at 4 weeks of age in this infant.⁷

The diagnosis of this disease is usually made on the clinical picture plus the radiographic characteristics or by a chance finding on x-ray films alone in asymptomatic cases. The term "marble-bone" was chosen because of the x-ray appearance rather than the consistency of the osseous structures. Karshner in 1926 suggested the term osteopetrosis or "brittle bones" to better characterize the clinical picture. The main radiographic feature is a loss of distinction between cortical and cancellous bone with the long bones casting a dense and homogeneous shadow. The medullary cavity is obliterated. Metaphyseal ends show clubbing as well as longitudinal streaks and transverse areas of rarefaction. X-ray evidence of osteopetrosis is frequently widespread even in the benign form, and changes can be found in the ribs, pelvis, vertebrae, and femur. There is frequently a loss of diploic space and thickening of the base of the skull, secondary to which the neuroforamina are comprised.^{4,8}

The etiology of osteopetrosis is unknown. There is general agreement that modeling of bone is abnormal. It was shown by Zawisch⁹ that osteoclasts were indeed present, contrary to the opinion of some other observers. Her feeling was that damage to the bone-forming blastema at the second stage of development prevents resorption of embryonic bone and indirectly impairs hematopoiesis. Rubin⁴ has suggested a failure to absorb primary spongiosa and the consequent changes in the modeling of bone to be the responsible factor.

The first mention of decompression of the optic canal as a method of treating progressive optic atrophy in osteopetrosis seems to have been by Ellis and Jackson⁶ in 1962. They reported a patient who had been operated upon 8 years before with a satisfactory result in that visual loss was halted. Hill and Charlton,² in 1965, reported 2 cases in which an operation had been done. In one the visual results were uncertain due to advanced disease and the young age of the patient at the time of operation. Their other patient, also a child, had useful vision 3 years after craniotomy. These authors point out that the presence of an atrophic nerve head is not a contraindication to operation if vision can be demonstrated. The result in our case would seem to substantiate the validity of this statement.

Summary

A case of the so-called benign type of osteopetrosis with late ocular involvement has been presented. Optic atrophy due to bony encroachment at the optic foramen was the apparent cause of visual loss, and operative intervention was carried out. No progression of the optic atrophy on the side operated upon has been noted for 8 months. The signs, symptoms, and theories of etiology have been briefly discussed. The patient is one of a very few with osteopetrosis who has had surgical intervention in an attempt to preserve vision.

Acknowledgement.—The author wishes to thank Harold Cotton Ray, M.D. of Huntsville, Alabama for his assistance in the preparation of this paper.

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STAFF CONFERENCE

Vanderbilt University Hospital*

Intractable Pain

DR. WILLIAM MEACHAM: The case for discussion today concerns the problem of intractable pain due to inoperable malignant disease and the neurosurgical management of such a problem. The case history will be given by Dr. Fruin.

DR. ALAN FRUIN: The patient is a 33 year old woman who was found to have carcinoma of the cervix about one year ago. Pelvic exploration revealed extension of the tumor into the lateral pelvic walls. In spite of adequate irradiation to the area, she has developed severe back and pelvic pain and has been found to have further regional extension of the tumor. Persistent edema of both lower extremities has occurred due to thrombosis of the inferior vena cava as disclosed by venocavagram. Lymphangiogram revealed metastatic involvement of the para-aortic and pelvic lymph glands. The remainder of her examination including the routine laboratory studies was negative.

The patient was considered an excellent candidate for a neurosurgical procedure for relief of pain since frequent large doses of morphine did not adequately control her discomfort.

A percutaneous cordotomy using a radio-frequency lesion generator was performed uneventfully. A level of analgesia was established up to the 6th thoracic dermatome on the left side. One week later a similar lesion was made on the opposite side of the spinal cord at the C₂ segment with an analgesic level extending to the first thoracic level. She has had complete relief of pain, and except for a transient period of difficulties in voiding, there have been no complications. Respirations have not been impaired at any time.

DR. MEACHAM: The development of this ingenious operation for relief of pain has had an interesting history beginning with the traditional "open" operation which has stood the test of time and has been a boon to many hundreds of victims of intractable, unrelenting pain. Dr. Meirowsky has reviewed the historical background of this operative procedure which has excited neurological interest for over a hundred years.

DR. ARNOLD MEIROWSKY: The first

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cordotomy on man was performed by E. Martin at the instigation of W. G. Spiller in 1911, and was reported in the JAMA in 1912. In the middle of the last century (1858), J. M. Schiff observed that by sparing the posterior columns of the spinal cord of rabbits but dividing the remainder of the cord the animals would respond to touch but would ignore painful stimuli. Schiff recognized the similarity between this state and the clinical condition of analgesia which had been described in man by Beau and Vieusseux in the early part of the 19th century. Clinical observation by W. Mueller in 1871 and by W. R. Gowers in 1878 established the production of contralateral analgesia by hemisection of the cord. Mueller had studied a patient with a stab wound whose lesion had completely divided one-half of the spinal cord and the posterior column on the other side; he observed the presence of anesthesia on both sides, but analgesia only on the side opposite the hemisection. Gowers described a penetrating wound of the lateral column of the spinal cord produced by an indriven bone fragment resulting in contralateral analgesia without impairment of touch perception. L. Edinger demonstrated the existence of the spinothalamic tract in 1889 in newborn cats. On the basis of an analysis of 175 cases reported in the literature, K. Petren came to the conclusion that the pathways for cutaneous pain and temperature cross to the opposite side of the cord and ascend somewhere in the lateral column of the white matter. In 1905, W. G. Spiller reported a case with loss of pain and temperature appreciation over the lower part of the body. At autopsy, tuberculomas were found involving the anterolateral columns of the caudad portion of the thoracic cord. A. Schueller was the first to section the anterolateral tracts in monkeys with the idea of employing this operation, which he named "chordotomie," in man for the relief of pain. It was E. Martin who, in collaboration with Spiller, performed the first cordotomy in man in 1911. The patient was not fully relieved of pain resulting from a low cord tumor but did have analgesia in the lower extremities. Nine years later, in 1920, C. H. Frazier demonstrated that a 3 mm cut, dividing the anterolateral column

at the 5th thoracic segment, would produce analgesia over the entire contralateral surface of the body caudad to the tractotomy, resulting in relief of pain in the corresponding area.

DR. MEACHAM: As you have heard, the operation of cordotomy is a beautiful example of how astute clinical observations and an understanding of the essentials of neuroanatomy can lead to a beneficial practical application. I am certain we all admire the courage and the conviction of the surgeon who first dared to sever portions of the intact human spinal cord.

Even though our patient for today was treated by a newer method of tractotomy, there are still valid and useful reasons for utilizing the open operation in some situations. Dr. Bond will discuss the usefulness and limitations of the traditional "open" surgical method of cordotomy.

DR. ARTHUR BOND: The classical cordotomy which has come to be known as "open" cordotomy became a standard surgical procedure and has offered great benefit to patients suffering from a wide variety of painful disorders. For the most part, these disorders have been malignant diseases with pain that has been difficult or impossible to control with the use of heavy doses of narcotics. One of the major disadvantages of open cordotomy is the fact that it represents a major surgical procedure requiring exposure of the spinal cord. The procedure can be done either in the upper thoracic area or in the upper cervical area. Cordotomy incisions have been made elsewhere, but classically these are the two areas that lend themselves best to the surgical procedure. We have been accustomed to doing the cordotomy under general anesthesia, although in many instances it is possible and perhaps preferable to do the procedure under local anesthesia. The mortality rate will vary with the type patients undergoing the procedure. Statistical reports of various series of patients have reported mortality rates ranging from 4 to 25%. If one has a large number of chronically ill patients with far advanced malignancy, the mortality rate, of course, is going to be much higher. One of the distressing experiences with cordotomy has been the tendency for the sensory level to

drop or partially disappear. This may be due to technical factors with incomplete severance of the fibers of the spinothalamic tract, or in other cases it may be due to the anatomic arrangement of the spinal cord which allows fibers to ascend uncrossed or even out of the usual anatomic distribution of the spinothalamic tract. In these individuals there may be a slow but progressive diminution of the sensory loss until pain recurs in the original sites. It takes time for this to happen, and in most cases where malignant disease is being treated, the patient's life expectancy is short and the dropping cordotomy level is not a grave problem. However, in those cases where cordotomy is done for benign disease, this condition may readily develop and may lead to failure of the procedure to control pain.

An effective cordotomy requires an incision in the anterior quadrant of the spinal cord that severs or damages many of the tracts in that anterior quadrant. This in itself leads to the development of some side effects which are of importance and must be taken into account in the consideration of this surgical procedure.

This corticospinal tract classically is limited to the posterolateral aspect of the spinal cord, but an incision beginning at the dentate ligament may very well sever some fibers of the corticospinal tract extending more anterior than this. Careful study of patients who have undergone cordotomy will usually reveal a mild degree of muscular weakness. Very few persons notice any weakness themselves and it is only a small number who will be handicapped by the minimal degree of paresis. More severe paralysis is probably due to interference of vascular supply to the cord. Injury to the spinocerebellar tracts may produce temporary ataxia which usually is compensated for rather quickly once the patient becomes ambulatory. Of a more distressing nature is the involvement of bladder and sexual function. The cordotomy that is performed on one side of the spinal cord will usually leave the patient's bladder function intact. Although temporary involvement of bladder function is not at all unusual, some patients may need several months to recover complete bladder

function. The same can be said for sexual function, although this is a difficult matter to evaluate. The bilateral cordotomy has a much more profound influence on bladder function, and most patients who have bilateral cordotomy will have some permanent impairment of function. This may be manifest by retention, by failure to empty the bladder completely, or in some cases by incontinence. Sexual function is lost following bilateral cordotomy.

Impairment of respiratory function is another major disadvantage in performing cordotomies in the cervical region. Minimal loss of tidal volume accompanies unilateral cordotomy, but with bilateral cordotomy a significant reduction in tidal volume usually will follow. If the patient already has a borderline respiratory reserve, he may develop serious respiratory difficulty during the early postoperative period. Another peculiar phenomenon associated with the cordotomy has been reported. This is the loss of involuntary control of respiratory function so a patient is unable to maintain adequate respiratory function during sleep and must, therefore, be assisted by a mechanical respirator.

DR. MEACHAM: In an effort to avoid some of the risks of open surgery with a general anesthetic and to apply the principles of pain relief to persons who could not be considered candidates for operation because of high risk factors, the newer methods of transecting the lateral spinothalamic pathways were developed. Dr. Cobb has obtained a very excellent result in this patient, and he will now describe the procedure in more detail for us.

DR. CULLY COBB: Percutaneous or "needle" cordotomy has been developed in the past 5 years and has been accorded wide acceptance. Through the work of Mullan, Rosomoff, Lin, and others, a technic has evolved that has proven to be quite accurate and can be employed wherever certain basic equipment is available. I think the way that we do the operation requires the consideration of several important technical factors. For example, it is important to have biplane fluoroscopic equipment at hand and to use the impedance monitor which reveals a sharp change in impedance response when the electrode tip leaves the fluid-filled suba-

rachnoid space and enters the tissues of the spinal cord. The production of the destructive lesion is made with a radiofrequency lesion generator, now used by most of those who perform this operation.

Our operations have all been done at the level of the atlanto-axial interspace (C1-C2), and generally the operation is performed as follows: With the patient in the supine position for cervical fluoroscopy, a short bevelled 18 gauge lumbar puncture needle is inserted just below the tip of the mastoid process, and under fluoroscopic observation it is passed into position approaching the dura and subarachnoid space. When the correct position is obtained, the needle is passed through the dura into the subarachnoid space and a small amount of cerebrospinal fluid removed and emulsified with a few drops of Pantopaque. This mixture then is injected with some force into the spinal canal so the radioopaque material will layer on the dentate ligament, the anterior surface of the cord, and the posterior wall of the spinal canal. The needle tip is then advanced so it will enter the cord about 1 mm anterior to the dentate ligament, and at this point the electrode is inserted through the needle, entering the cord substance and causing a marked change in the impedance monitor, indicating that the electrode was indeed within the substance of the cord. (Fig. 1 and Fig. 2.) If all of these criteria for localization are

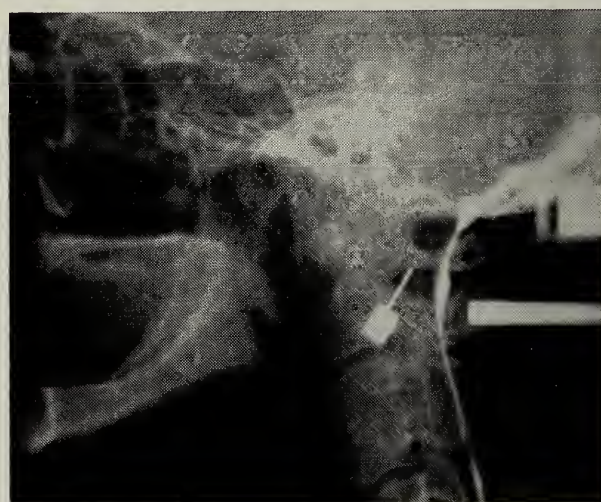


FIG. 1. Lateral view of cervical spine showing the needle electrode in the final position for producing the lesion. (Note the layering of Pantopaque on the dentate ligament.)

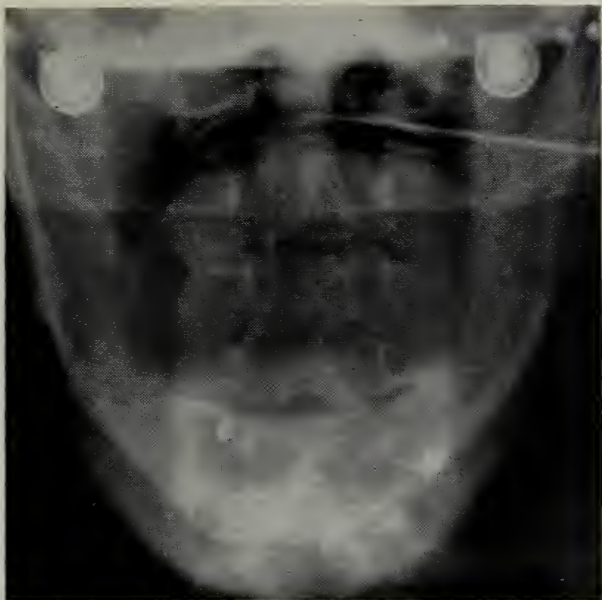


FIG. 2. Anterio-posterior view of cervical spine showing final position of electrode placement.

met, a $2\frac{1}{2}$ second radiofrequency current is passed through the electrode using the parameters recommended by Rosomoff.

Our experience indicates that the best results are obtained when a complete cordotomy effect is gained by this first exposure of 2.5-5 seconds of radiofrequency current. When a satisfactory effect is not obtained at first, we have found that it is best to readjust the position of the needle rather than to enlarge progressively the lesion in the hope of getting a better result. Because of this we have sometimes made as many as three small lesions before a satisfactory cordotomy was obtained. In some 30 cordotomies in about 20 patients, we have observed very few complications. None of the patients has had lasting respiratory difficulty or required a permanent catheter, although several have required catheterization transiently, and several had had transient weakness and ataxia of the lower extremities. It has been our impression that motor weakness seemed to follow placement of the electrode too close to the dentate ligament. Consequently we have made an effort to keep the electrode very slightly ventral to the position of the dentate ligament. By careful positioning of the electrode, it is possible to get segmental analgesia for either the upper extremities or the shoulder girdle or for the lumbosacral areas of the opposite side or for a complete

cordotomy for the entire side up to the C3-C4 level.

STUDENT: What is your opinion concerning the dropping level of analgesia after this type of cordotomy?

DR. COBB: The high level of analgesia obtained with this method is maintained better than that with the open method in my opinion. The tendency for the level to fall has appeared to be less as time has passed, although this is not true in all patients. Obviously, as our appreciation of the minor technical points of the procedure has improved, our results have improved proportionately as well as our confidence in the result.

STUDENT: Is this operation applicable to intractable pain of nonmalignant origin?

DR. COBB: Whereas I originally thought that it would be an operation indicated mainly in people with advanced cancer, I now have the feeling that it is a better procedure than an open cordotomy for a benign condition. Only 2 of our patients had the operation done for benign conditions. Both had postherpetic neuralgia in the intercostal dermatomes and both have had excellent relief of pain now for several months in this notoriously difficult problem of pain.

DR. FRUIN: Is it contraindicated to perform a bilateral percutaneous cordotomy at the same sitting?

DR. COBB: We have had some trepidation about doing bilateral operations at the same time, and thus far our bilateral operations have been separated by at least 2 days. Others have reported doing bilateral simultaneous operations without mishap, but this should probably be reserved only for individuals who have no respiratory disease or impairment. Otherwise, sleep apnea may occur and prove to be a troublesome if not fatal complication. It is important in all bilateral cordotomies to keep such patients under constant respiratory monitoring for at least 48 hours. We have observed some shallowness of respirations but no other important complications. It has been determined that there is some diminution of vital capacity in all patients who have had cervical cordotomy, whether unilateral or bilateral. This may be due

to partial interruption of the reticulospinal pathways by the lesion.

DR. MEACHAM: One of my patients developed respiratory arrest following a unilateral cordotomy, and periodically whether asleep or awake would cease all respiratory efforts until a period of mechanical assistance had been given, after which he would breathe normally for several days only to have the apnea occur again. In all likelihood, he had been damaged by a cord lesion which was too large, crossing the midline and acting in effect as a bilateral lesion.

STUDENT: With further perfection in the percutaneous technic, will there be any indication in the future for recommending the open operation?

DR. MEACHAM: It is likely that a bilateral cordotomy at the upper thoracic level by the open method will continue to

be performed in certain pain conditions. For example, a patient with midline pain from a malignancy of the bladder could have simultaneous bilateral cordotomy carried out as a single operative procedure without risk to respiratory function if performed at the high thoracic level. While he may lose sphincter control, this is likely to have already ensued from the neoplasm itself or would soon be impaired as his disease progressed.

There are other similar examples of painful conditions which might be managed by this method rather than by the percutaneous technic. However, it is now obvious that with the percutaneous method we have at our disposal a method of pain relief that is of particular value to the cancer-ridden, cachectic, debilitated patient who is such a poor surgical risk that an open operation under general anesthesia is prohibited.

* * *

Wolfe-Parkinson-White Syndrome

Researchers think they have finally found a cause as well as a way of correcting a heart beat irregularity that has long puzzled medical men. Called Wolfe-Parkinson-White Syndrome (WPW), this electrocardiographic abnormality affects about one percent of the population.

In some patients, WPW is mild and does not produce any serious effects. In others, however, it can bring on very fast contractions of the ventricles. These out-of-step rhythms may be sufficiently severe to produce life-threatening heart failure.

Dr. E. Neil Moore of the University of Pennsylvania School of Veterinary Medicine, and Dr. John Boineau of Duke University Medical Center in Durham, North Carolina, found that some extra heart fibers were at fault in WPW, and that the condition, when it is severe enough to warrant it, is correctable by surgery.

In an interview, Dr. Moore, an Established Investigator of the American Heart Association, explained that WPW appears to be brought about by a "short circuit" in the electrical network

that carries the muscle-contracting signal through the heart. (The EKG is a record of this signal.)

Normally, the signal, which originates in a group of specialized muscle cells in the upper right atrium, is delayed by the atrio-ventricular (A-V) node before it is allowed to pass to the ventricles.

Dr. Moore and Dr. Boineau discovered a dog with naturally occurring WPW. Their studies turned up the first direct evidence of the existence of accessory fibers that by-passed or "shorted" the A-V node. Thus, the signal traveled into the ventricle before time, thereby disturbing the regular electrical patterns that govern the normal heart beat.

Dr. Moore said that such fibers subsequently were found in 3 human patients with serious WPW. When these fibers were removed surgically, the patients reverted to a normal heart rhythm.

A full report of the doctors' studies appeared in the March issue of *Circulation*. (Release by the Middle Tennessee Heart Association.)

CLINICOPATHOLOGIC CONFERENCE

City of Memphis Hospitals

Necrotizing Papillitis*

JGH 138402.¹ This 62 year old Negro was admitted to the hospital with a 5 day history of dysuria, frequency, chills, fever, and back pain.

The patient had a 20 year history of diabetes, controlled with insulin and carried additional diagnoses of bronchial asthma (25 yrs.), cor pulmonale with RBBB on old EKG's and ASHD with angina. The patient had been hospitalized one month before this admission with a urinary tract infection. Urine cultures revealed *Serratia* and *S. faecalis*. The patient responded to kanamycin and penicillin, but had a rise in BUN from 22 to 86 mg% with therapy with a serum creatinine of 3.2 and creatinine clearance of 34 ml/min. During this admission the patient gave a history of increasing nocturia, dribbling, straining to void and decrease in urinary stream, but signed out AMA on the 10th hospital day before urologic study could be done.

After discharge, the patient was seen in Medicine Clinic one week before the current admission because of continued symptoms of prostatism and the recent return of dysuria; treatment was begun with tetracycline. Four days prior to admission, he was seen in the Emergency Room complaining of left flank pain, nausea and vomiting. He had a WBC count of 17,250 and the urine contained 75-100 WBC. Chest and abdominal x-rays were interpreted as normal, and the patient was discharged on ampicillin. However, pain increased in severity, accompanied by anorexia, nausea, vomiting, chills, fever, dysuria and frequency, and he was subsequently admitted to the hospital.

Past history revealed admission for obstruction of the left ureter of undertermined cause in 1948: gastric ulcer with bleeding and a subtotal gastrectomy and gastroduodenostomy in 1962; possible cholecystitis in 1965; bronchopneumonia in 1967; and a recent cataract extraction O.D.

Physical examination. The BP was 110/60, P 120 and regular, R 32, T 100°R. The patient was slightly obese and in mild respiratory distress. Other than for evidence of recent cataract extraction O.D., and grade II arteriosclerotic retinal changes, the eyes were negative. Diffuse inspiratory and expiratory wheezes and coarse rhonchi were heard over the chest, but without rales. Heart sounds were inaudible because of wheezing. The abdomen showed slight obesity

and several incisional hernias along midline surgical scars. Bowel sounds were somewhat decreased but present. There was bilateral CVA tenderness, more marked on the left, and also LUQ tenderness without rebound. The prostate was of normal size and consistency. A trace of pedal edema was present.

Laboratory Data. On admission the Hct was 28, WBC count 15,000 with 87% segs, 2% bands, 6% lymphs, 5% monos, and adequate platelets. There was marked toxic granulation of the polys. Catheterized urine gave 2+ protein, 1+ glucose, pH 5, Sp. Gr. 1.012, WBC were with many clumps, 75-100 RBC/hpF., and occasional coarsely granular and hyaline casts. A Gram stain revealed few grams, negative rods. The BUN was 117 mg, serum creatinine 7.0 mg per 100 ml., Na was 125, K 4.5, Cl 102 and bicarbonate 14 mEq/L. Stool was guaiac negative. Chest x-rays showed cardiomegaly with left ventricular predominance. Plain film of abdomen was non-specific. EKG was unchanged, showing right bundle branch block. Blood gases revealed pH 7.395 with a pO₂ of 67, pCO₂ 25, and a O₂ sat. of 92%.

Hospital Course. Treatment was initiated with IV fluids with CVP monitoring, nasal O₂A, bronchial hygiene program, NPH insulin with sliding scale coverage, and the patient was started (after cultures) on IV cephalothin (Keflin) and given one dose of 500 mg kanamycin IM. On the evening of admission he had a spike of T to 104° and became confused and combative. Blood sugar was 308 and serum acetone negative. The patient's mental status cleared somewhat with lowering of his temperature, and on the 2nd hospital day had become afebrile, but the BUN had risen to 138 mg. The patient again spiked a T to 103° on the evening of the 2nd hospital day, and again became confused and disoriented. Initial urine and blood cultures were sterile. Lumbar puncture was done with some difficulty with 1,500 RBC, WBC, and normal protein with negative cultures (supernatant clear).

The patient continued to maintain temperature in 102°-103° range and on the 3rd hospital day, urologic consultation was obtained with the impression that the patient did not have perinephritic abscess or ureteral obstruction, but was too ill to undergo any urological diagnostic procedures, such as retrograde pyelography. Abdominal film was again thought to be non-diagnostic with both psoas muscles visualized and without evidence of scoliosis or spasm. A Foley catheter was inserted, a residual urine of 125 ml obtained, and the patient was maintained on catheter drainage. The WBC count was 27,000 with a marked left shift and adequate platelets. The BUN remained approximately at 130 mg.

On the 4th hospital day, the patient continued to spike. T to 103° with mental status

*From Departments of Medicine & Pathology, University of Tennessee College of Medicine, Memphis, Tenn. January 29, 1970.

unchanged. Urine and blood cultures were reported as growing *Serratia* and *Pseudomonas* and the patient was begun on gentamicin IM, and IV chloramphenicol (Chloromycetin). Abdominal examination revealed markedly decreased bowel sounds and plain film of the abdomen revealed gas in his small and large bowel. He was, therefore, begun on nasogastric suction. The BUN remained at 130 mg. Serum amylase was normal. He continued to have a septic course with fever of 104°-105°, and on one occasion passed material resembling tissue in his urine. On the morning of the 6th hospital day the patient had cardiorespiratory arrest and resuscitation attempts were unsuccessful.

DR. DAVID E. WADE: Dr. Wruble has asked that I limit my analysis of this case to approximately 25 minutes. Therefore, without further ado, I wish to point out that the diagnosis is fairly obvious from the information given to us in the first two sentences of the protocol. This information describes a 62-year old man who had a 20-year history of diabetes mellitus and who was suffering from symptoms and signs of upper urinary tract infection. This, plus the fact that we are discussing his case at a clinical pathologic conference, strongly suggest a disease entity which I will describe later.

We are told that the patient had a right bundle branch block and cor pulmonale. To save time, Dr. Wruble, would you tell me if the bundle branch block was complete or incomplete?

DR. LAWRENCE D. WRUBLE: It was complete.

DR. WADE: This leads me to suspect a cardiac abnormality not necessarily caused by a pulmonary hypertension, since the latter ordinarily causes (if anything) an incomplete but not a complete right bundle branch block. The completeness of the block, therefore, suggests a cause other than pulmonary hypertension, such as congenital defect, coronary sclerosis, or indeed, it may not be of any particular significance at all.

We also are told that the patient had been diagnosed as having arteriosclerotic cardiovascular disease and angina. I suspect that he did have coronary diabetes mellitus for 20 years. The impression that he had angina does not necessarily mean that he had an inadequate perfusion of the left myocardium, since angina can also originate from an inadequately oxygenated

right ventricular muscle. The cor pulmonale and bundle branch block make the latter interpretation more likely.

It was during his initial hospitalization that a urine culture grew out *Serratia* and *Streptococcus faecalis*. This *Streptococcus* is not common initial pathogen of the urinary tract, which leads me to suspect that the patient had suffered from previous, probably recurrent, infections of the urinary tract in the past. Additional evidence to support a chronic recurrent type of infection is the presence of the extremely rare organism, *Serratia*. According to Dr. Claude P. Ledes of the Department of Medicine, a bacteriologist, whom I consulted regarding this organism, *Serratia* is usually considered a nonpathogen, a saprophyte, is quite rare and occurs only in cachectic, malnourished and/or chronically diseased individuals, where it rarely may prove to be considered a pathogen and contribute significantly to a disease process. I will return to this organism later.

We see that the patient's BUN was 22 mg on admission and increased to 86 mg during hospitalization. A fasting BUN of 22 mg suggests significant renal insufficiency, and the rise to 86 mg not only supports this contention but also suggests progressive renal destruction.

If the patient had remained in the hospital and permitted continued antibiotic therapy and urologic relief of the obstructive uropathy (which I believe he had at that time), he probably would be alive today. But in spite of the increasing symptoms and signs of infection and obstruction in the urinary tract, he signed out against medical advice.

After having received tetracycline as an outpatient, he returned to the emergency room complaining of left flank pain, nausea and vomiting. The complete blood count and urine analysis again supported the diagnosis of urinary tract infection. However, in view of the flank pain, we should consider the following differential diagnoses: splenic and/or adrenal abscess and/or infarction, pyelonephritis, nephric or perinephric abscess, nephric infarction, pyelophlebitis, necrotizing papillitis, ureteral obstruction, renal vessel occlusion, pancreatitis, retroperitoneal hemorrhage,

dissecting aortic aneurysm, psoas abscess, renal tumor, prostatitis and seminal vesiculitis. Pancreatitis is unlikely since it usually causes deep epigastric or perigastric pain, and, we are told later, the serum amylase was normal. Retroperitoneal hemorrhage, dissecting aneurysm and psoas abscess are unlikely, since a mass was not palpable, the kidneys were in their normal location, the aorta was not calcified, the patient did not have a history of significant hypertension, the hematocrit was stable and the psoas shadows were normal. Nothing in this case suggests renal tumor except for the flank pain, so I think we can eliminate its consideration. Prostatitis and seminal vesiculitis usually cause pain more localized to the low back and/or pelvic areas. In addition, the rectal examination was negative. The other disorders are distinct possibilities. The nausea and vomiting are rather non-specific manifestations which can occur with any of the possibilities listed, and, in addition, certainly can be caused by the patient's sepsis and uremia. Ampicillin was prescribed, but the patient's toxicity progressed relentlessly and he was hospitalized for the last time.

The past history of ureteral obstruction was possibly of great significance. For some unrecorded reason, investigation of this block was not accomplished and the cause is therefore unknown to us. However, several disorders at least should be considered. One remote consideration is retroperitoneal fibrosis, which, in the idiopathic type, is possibly an autoimmune phenomenon. Diabetes mellitus also shares some characteristics of autoimmune disease. But retroperitoneal fibrosis is usually bilateral, and only one side was involved in our patient. In addition, retroperitoneal fibrosis certainly would have become apparent long before now.

Other considerations would be: urolithiasis, aberrant vessel, ureterocele and tumor. Of these, only ureteral calculus seems most plausible. To speculate further without additional information would be fruitless.

On physical examination we are told that there was grade II (presumably Keith-Wagner classification) retinal changes which, in my opinion, only occur when

hypertension has been present. Therefore, the blood pressure of only 110/60 mm of mercury, pulse of 120 beats per minute and respirations of 32 per minute in view of a rectal temperature of only 100° F may reflect incipient shock, and I again consider adrenal insufficiency and/or septicemia. Indeed, I would not have hesitated to administer corticosteroids at this time.

DR. WRUBLE: You would have given steroids in the face of infection?

DR. WADE: Yes, provided appropriate bacteriocidal drugs also were being given. Administration of corticosteroids during a bacterial infection is not contraindicated under these circumstances.

The chest findings of wheezes and rhonchi are consistent with tracheitis, bronchitis and bronchiolar spasm, but the absence of rales (which originate in wet alveolae) tends to eliminate any significant alveolar fluid (e.g. pneumonia, left heart failure). The diffuse point of maximal cardiac impulse is consistent with right ventricular hypertrophy (an enlarged right ventricle is substernal in location, and during systole causes a diffuse lifting or heaving sensation to the palpating hand, whereas in left ventricular hypertrophy systole causes the tip of the apex to hit against the chest wall resulting in a tapping sensation). It may be of great significance that the bilateral pain in the costovertebral angle was more marked on the left, and that left upper quadrant palpation also caused pain. I was surprised that the prostate was not enlarged. However, median bar hypertrophy could have been present and account, in part, for his "prostatism."

The laboratory data again support a diagnosis of bacterial urinary tract infection. The clumping of white blood cells plus the systemic signs and symptoms of toxicity strongly suggest that the infection is in the upper tract (isolated systitis rarely, if ever, causes fever). Hematuria can be due to a number of disorders (e.g., tumor, coagulation defects, glomerulonephritis, sickle cell disease, etc.), but in this case, suggests severe inflammation and possibly calculous disease. The BUN, creatinine and electrolytes are consistent with uremia. The blood gases revealed a normal pH (the patient was able to compensate for the ac-

cumulated hydrogen ions); a low pO_2 (consistent with a mild defect in pulmonary oxygenation of blood); a low pCO_2 (consistent with the decreased carbonic acid concentration incident to the removal of CO_2 via the lungs, a homeostatic mechanism designed to maintain a normal bicarbonate-carbonic acid ratio as stated in the Henderson-Hasselbalch equation); and a normal O_2 saturation (if the pO_2 decreased a little more, the O_2 saturation would enter the steep slope of the oxygen dissociation curve and oxygen saturation would rapidly fall).

The choice of cephalothin and kanamycin seems appropriate in view of the mixed organisms noted on the urine Gram stain. Only 500 mg of kanamycin were given, since, in uremia, the half life of this drug is greatly prolonged, and the usual dose may have resulted in toxicity (e.g. shock).

One the third day, a urologic consultant gave the opinion that the patient did not have a perinephric abscess or ureteral obstruction. I find it quite difficult to understand how the urologist could possibly have arrived at the conclusion and would like to hear more about this matter if possible.

DR. WRUBLE: Unfortunately the urologist are not present, but Dr. Sutton, a resident on Medicine, who was in charge of the patient, might elucidate this point for us.

DR. FRANK SUTTON: I think the urologists thought that the two disorders mentioned were possible, but that the answer was academic since the patient was extremely ill, thrashing about in bed, and was not considered a candidate for urologic diagnostic procedures.

DR. WADE: Thank you for the clarification. I suggest, however, that investigation was not academic and that further evaluation could possibly have been life saving. What was the urinary output during this hospitalization,

DR. SUTTON: Urinary output was good until the last few days when the patient gradually became oliguric and then anuric.

DR. WADE: This information is extremely important. If only unilateral renal insufficiency exists, urinary output remains satisfactory. If significant bilateral upper tract disease is present, urinary output will

fall. Could we speculate that the right upper urinary tract was not too damaged until the last several days of the patient's life?

On the 4th hospital day urine and blood cultures grew out *Serratia* and *Pseudomonas*. The presence of *Serratia* takes on more significance, since it was also present in the urine one month prior to this last hospitalization. This suggests that it had been present during the entire period, had caused or contributed to progressive destruction of renal function and later extended into the blood stream.

The next 2 days the patient remained extremely septic and he died in so-called cardiorespiratory arrest. However, a piece of tissue was found in the urine. This may have been the diagnostic finding of what I believe to be this man's basic disease process. The disease is acute necrotizing papillitis. I suspect the tissue, when examined microscopically, had the appearance of a renal papilla. But one should consider other possibilities too, such as tumor fragmentation.

The cause of acute necrotizing papillitis seems to be any one or a combination of the following: analgesic abuse, sickle cell anemia, diabetes mellitus and obstructive uropathy. I submit that this patient did have left ureteral obstruction (the cause of which is not clear at this time). The past history of left ureteral obstruction, the presence of diabetes, and the lateralization of the obvious bacterial infection of upper urinary tract to the left side strongly suggest that there was acute necrotizing papillitis of the left kidney instead of its being bilateral as is usually the case.

I would like to bring out one more point. Acute necrotizing papillitis is almost invariably fatal. The only plausible treatment, if the disease is unilateral, is to remove the involved kidney. Since there was a good chance that this patient's papillitis was only in the left kidney, and since the urinary flow was initially good (right kidney functioning), and considering the poor prognosis without surgery, I submit that left nephrectomy possibly might have saved this patient's life.

The final cause of death most likely was sepsis, but pulmonary embolism acute

myocardial infarction or adrenal insufficiency with shock are additional considerations.

Final Diagnosis.

- 1) Acute necrotizing papillitis
- 2) Chronic, subacute and acute pyelonephritis, bilateral
- 3) Ureteral obstruction, left, possibly from stone, papillary fragment or retroperitoneal fibrosis
- 4) Uremia
- 5) Septicemia, with possible septic infarcts to kidney, spleen, lung, adrenal gland, etc.
- 6) Tracheobronchitis
- 7) Median bar hypertrophy, prostate
- 8) Cor pulmonale
- 9) Possible congenital anomaly as cause for complete right bundle branch block
- 10) Arteriosclerotic cardiovascular disease, with possible acute myocardial infarction
- 11) Islet cell fibrosis

Pathologic Findings

DR. JERRY T. FRANCISCO: The autopsy findings support in almost every detail the diagnosis given by Dr. Wade. It remains only to comment upon the mechanism of this disease and the terminal phase.

The left kidney was most severely diseased but evidences of chronic renal infection were present bilaterally. The left ureter was obstructed with 3 small, black, friable stones, which were at the ureteropelvic junction. The papillae of the left kidney were blackened and possessed a rim of very pale renal tissue. (Fig. 1).



Fig. 1

This area was necrotic. The finding of *Serratia* clinically was of considerable interest for this organism was recovered from the urine and kidney at postmortem examination. The *Pseudomonas* which was recovered less consistently clinically was not identified at autopsy. Because *Serratia* was recovered on a number of occasions it would lead me to conclude that this organism could have been significant in this case. This organism was recovered from the blood and urine before death, and also was recovered from blood, urine and the kidney postmortem.

The anatomic findings of diabetes mellitus are typically vague or nonexistent but there was a moderate degree of pancreatic islet fibrosis present.

The presence of the sepsis was supported by the finding of an organism in the blood at postmortem, by the finding of small fibrin thrombi in the pulmonary vessels,¹ and the finding of a recent small cerebral cortical infarction in the right parietal area of the cerebral hemisphere.

The lungs revealed a filling of many bronchioles with acute inflammatory cells. There was little inflammatory reaction in the surrounding alveolar areas. This was not a widespread involvement and did show some evidences of clearing. In some areas there were macrophages as well as a mixture of chronic inflammatory cells.

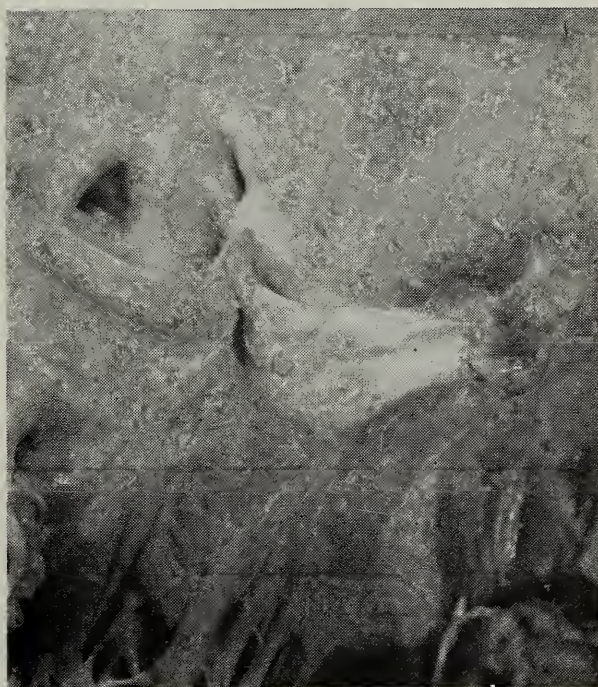


Fig. 2

The prostate was not increased in size or had evidence of obstruction. There was some chronic inflammatory change of the urinary bladder.

The right bundle branch block was related to a very anomalous right coronary ostium (Fig. 2) and the associated fibrosis along the right side of the interventricular



Fig. 3

septum (Fig. 3). This was simply an incidental finding and is not believed to have participated in the death of this individual.

In summary, this was a patient with long

standing diabetes and the commonly associated renal infection. This renal infection was further complicated by obstructive uropathy due to stones. The presence of infection and obstruction resulted in necrotizing papillitis probably due to *Serratia*. This infection produced progressive renal failure with terminal sepsis and attendant occlusive disease of small vessels which is associated. The anomalous coronary was probably the cause of the right bundle branch block but did not appear to be related to death.

DR. WRUBLE: Dr. Wade, would you comment more on whether or not operation should have been performed?

DR. WADE: If the urologist were fairly certain that necrotizing papillitis was present, and if he were certain that only the left kidney was involved, and if the right kidney had adequate function, and if the patient could have survived operation, I say an operation should have been performed. As you can see there are a lot of "ifs." The urologist probably should have seen the patient earlier. Maybe the consultation was not submitted early enough.

DR. WRUBLE: As it turned out, the tissue found in the urine, when examined microscopically, was merely a fibrin clot.

References

1. Dalldorf, Frederic G. Et al: Pulmonary Capillary Thrombosis in Septicemia Due to Gram-Positive Bacteria, *J AMA* 206:583-586, Oct. 14, 1968.

* * *



**Dollars Today—
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American Medical Association
Education and Research Foundation

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MEDICAL DIGEST

News of Interest to Doctors in Tennessee

SPECIAL—RE: MEDICAID

NURSING HOME POINT SYSTEM CREATED . . . The Tennessee Medicaid Program has originated a new system for evaluating skilled nursing homes which is designed to bring about a saving to taxpayers . . . "It is anticipated that the point system of evaluation would increase participation of skilled nursing homes in the statewide Medicaid program." . . . Under the system nursing homes will be given points for services provided . . . The system will be set up and based on an evaluation of basic points given for those services which should be performed by a registered nurse. Two basic point evaluations will be given for those services that should be performed under the direct supervision of a registered nurse. Other points would be designated for daily service, service required only two or three times a week, weekly service and bi-weekly service. An average of ten points per patient would be required under the new system.

* * * * *

SUMMARY OF KEY ACTIONS OF THE AMA HOUSE OF DELEGATES

AMA'S ANNUAL MEETING—CHICAGO . . . Physician registration was 8,104 with total registration being 20,911 . . . Key actions were dues increase, abortion, long-range planning, national health insurance, public relations and internal politics . . . The House passed a hotly debated statement on abortion, and raised membership dues to help finance needy programs. Wesley W. Hall, M.D., Reno, Nevada, was named President-Elect. Walter C. Bornemeier, M.D., Chicago, Illinois, assumed the office of President. Bland W. Cannon, M.D., Memphis, Tennessee, was re-elected to the Council on Medical Education.

* * * * *

AMA HOUSE ACTIONS . . . Business sessions lasted for 17 hours and 15 minutes, during which time the House considered a record 201 items of business. Included were 61 reports—31 from the Board; 3 from the Judicial Council; 6 from the Council on Constitution and By-Laws; 10 from the Council on Medical Education; 5 from the Council on Medical Service; and 6 special reports. The House dealt with a total of 140 Resolutions.

* * * * *

ABORTION . . . After long debate before the Reference Committee and on the floor of the House, delegates adopted the following statement on abortion:

"Resolved, that abortion is a medical procedure and it should be performed only by a duly licensed physician and surgeon in an accredited hospital acting only in conformance with standards of good medical practice, and after consultation with two other physicians chosen because of their professional competence, and within the medical practice act of his state; and be it further

"Resolved, that no physician or other professional personnel shall be compelled to perform any act which violates his good medical judgment.

Neither physician, hospital, nor hospital personnel shall be required to perform any act violative of personally held moral principles. In these circumstances, good medical practice requires only that the physician or other professional personnel withdraw from the case so long as the withdrawal is consistent with good medical practice."

* * * * *

DUES INCREASE . . . The House voted to increase annual AMA dues by \$40, to \$110 yearly. At the same time, the House directed that "basic and explicit information supporting the need for this increase, and future dues increases, be promptly disseminated by the AMA to individual members by every reasonable and available means possible; and that the aid of state medical associations be enlisted in this effort." The new dues will become effective with the next fiscal year, beginning December 1, 1970 . . . Some delegates sharply criticized the AMA for not disseminating to members details on why increase was needed. The original recommendation was for \$80, but the House approved only the \$40 dues increase.

* * * * *

PROFESSIONAL LIABILITY . . . The House approved a Board of Trustees' report stating that liability insurance protection is essential so that physicians may continue to provide needed medical care to the public. "It has been concluded," the report said, "that the best way to provide such assurance is on a collective, rather than an individual basis, under programs jointly sponsored by the American Medical Association and the respective state medical association . . . Minimum standards for an effective sponsored insurance program are being developed" and the Professional Liability Committee of the Board "is seeking with the insurance industry a means for instituting qualified insurance programs under such joint sponsorship with state associations which elect to participate."

* * * * *

MISCELLANEOUS ACTIONS . . . The House approved an extensive and expensive public relations program, including TV documentaries and institutional advertising. Estimated cost: \$10 million over the next five years . . . The House supported the Board of Trustees' plan to establish a wholly-owned, separate subsidiary corporation to engage in publication and possibly other related activity now carried on by the AMA in order to gain various economies, lower cost and better administrative and accounting procedures . . . Approval was given to a report of the Judicial Council, stating, that "it is not in itself unethical for a physician to own a for-profit hospital or interest therein. The use the physician makes of this ownership or interest may, however, be definitely unethical. For example, for a physician to send a patient to such a hospital or to prolong a patient's stay in the hospital for his financial benefit would be unethical." . . . The House resolved to support continuing efforts by the American Medical Association to inform the medical profession of the value and benefit to be realized from the implementation of adequate peer review programs . . . Mindful of its obligation to protect public health, the House called on state associations to take necessary steps to inform state legislators about the health hazards posed by the cult of chiropractic.

* * * * *

PLANNING AND DEVELOPMENT . . . One of the longest debates of the meeting involved creating a body for long-range planning and development. A permanent committee was approved and numerous recommendations were adopted. (See Page 683 for the recommendations on long-range planning and development as adopted by the AMA House of Delegates.)

Public Service

Communications Legislation

Hadley Williams, Public Service Director

PROFESSIONAL LIABILITY SURVEY REVEALING . . . An extensive survey has been completed by AMA on the subject of professional liability and as a result, the AMA House of Delegates voted to establish a nationwide program under the auspices of the AMA and state associations that desire to participate. Among the findings of the survey; (1) More than half of the MDs interviewed said an increase in malpractice claims is noticeable but not alarming and that premium rates are high but not excessive under existing circumstances; (2) Three-fifths of the MDs interviewed thought that increases in diagnostic procedures was a result of patient demands for optimum care plus the physician's desire to be more "certain" of diagnoses, and not because of the threat of malpractice claims; (3) Two-thirds of those interviewed felt the lack of good MD-patient rapport is a significant factor in producing claims and most felt that careless comments by colleagues was also an important factor; (4) The same percentage felt foreign interns and residents contributed no more than other interns and residents to the malpractice problem; (5) Effective peer review was endorsed but reactions to outside peer review were mixed, while most agreed peer review effectiveness would depend upon qualifications and diplomacy of peers and the cooperation of the medical staff; (6) Four of five MDs interviewed said if negligence caused injury to a member of their own family, they would sue; (7) Half of the physicians felt offering medical accident insurance to patients was a good idea and two-thirds felt that Federal participation in malpractice problems would be undesirable; (8) Four out of five MDs expressed interest in participating in a program if sponsored by the AMA and it offered comparable coverage that was now available.

* * * * *

REIMBURSEMENT UNDER MEDICARE PART "B" . . . The Social Security Administration has instructed fiscal intermediaries for Part "B" under Medicare to continue reimbursing physicians on the 83rd percentile formula. Previously, SSA had indicated that beginning July 1 the 75th percentile would be utilized. The House adopted Social Security and Medicare amendments May 21st which provides for this reduction but the bill has not seen Senate action to date.

* * * * *

RMP SETS CUT-OFF DATE FOR NEW PROPOSALS . . . The next cut-off date for new proposals submitted to Tennessee Mid-South Regional Medical Program (TMS/RMP) is January 1, 1971. Projects submitted by this date will be reviewed during 1971 for possible funding in January, 1972. Projects must be in final form by the cut-off date. Proposers should develop a letter of intent and a summary of the intended activities and file this with TMS/RMP, 1100 Baker Building, 110-21st Avenue, South, Nashville, Tennessee by early September. Based on this summary the proposer should obtain approval in principle from the Regional Medical Program's

Area Advisory Group, appropriate professional agencies, and staff of RMP before January 1. Core Staff and the Area Coordinators are available to assist proposers in getting their application in final form. All proposals must pertain to the categories of Heart Disease, Cancer, Stroke, and related diseases, continuing education of health professionals and innovative plans to deliver health care or to give assistance to physicians caught in the manpower crisis.

* * * * *

MEMPHIS OEO PROJECT FUNDED . . . The Office of Economic Opportunity has awarded a grant of \$94,866 to the Memphis Health Center, Inc. for the development of a prepaid group practice in Memphis. The non-profit corporation plans to provide medical care to predominantly black residents in a low-income area of South Memphis with a nucleus of about 30 MDs who are members of the Bluff City Medical Society, an affiliate of the National Medical Association. The corporation will be headed by Chauncey O. Daugherty, M.D. Milwaukee, Wisconsin received a grant of \$432,898 from OEO for the establishment of a prepaid group to provide care to approximately 20,000 inter-city poor in Milwaukee.

* * * * *

DRUGS TOP MEDICAID SERVICES . . . After eight months of experience with the Tennessee Medicaid program, drug costs topped the list of expenditures. Just over \$3.8 million was expended for drugs while inpatient hospital services totaled almost \$3.4 million. Physician services amounted to \$1.2 million while the combined amount for all other services (outpatient care, extended care facilities, home health services, x-ray and laboratory services) amounted to just under one million. The total program cost for the first year of operation (9 months) is expected to range between 18 and 19 million dollars.

* * * * *

LABOR LISTS LEGISLATIVE GOALS . . . Political objectives of organized labor have been outlined by COPE (Committee on Political Education) and labor campaign funds will support those candidates who agree with the following: repeal of Section 14b; a \$2 minimum wage, to be raised to \$2.50 if cost-of-living increases; extension of minimum wage to 13 million farm, local retail and service employees, domestic workers, etc.; a 35-hour work week with double time for overtime; collective bargaining rights for farm, hospital and Federal, State and local government employees; expansion of unemployment compensation programs; a 50% increase in Social Security payments; and a comprehensive National Health Insurance program. AFL-CIO represents 13,000,000 workers with an annual income close to \$11,000,000. (IMPACT needs your dues now!)

* * * * *

COMMITTEE OF 100 ANNOUNCES PLAN . . . Representatives of the Committee for National Health Insurance, usually referred to as the Committee of 100, held a press conference in Washington recently to announce their proposed system of compulsory national health insurance. The plan would provide for all necessary physicians' services; hospital services and nursing home care up to 120 days; home health services, mental health services with some limitations; dental care for children up to 15 years of age; certain drugs and some therapeutic devices such as eyeglasses. The program would be financed through a health security trust fund which would be raised from Federal general tax revenues and an employer-employee payroll tax. Taking part in the press conference were: Senator Kennedy (D) Mass.; Senator John Cooper (R) Ky.; Dr. Michael DeBakey; Mrs. Albert D. Lasker; and Whitney Young, Jr., Director of the National Urban League. The bill is expected to be introduced immediately and hearings may be held this Fall.

T M A

SPECIAL ITEM

AMERICAN MEDICAL ASSOCIATION LONG-RANGE PLANNING AND DEVELOPMENT

One of the longest debates of AMA's recent meeting in Chicago (June 20-25) involved creating a body for long-range planning and development. When the matter was settled, a standing committee of the House—the Council on Long-Range Planning and Development—had been created and the By-Laws had been changed appropriately to accommodate it.

The Council will have nine members. Four will be appointed by the Speaker (two from the House and two from AMA membership at large) and four will be appointed by the Board of Trustees (two members of the Board and two from AMA membership at large). The ninth member will be appointed by the President of the Student American Medical Association. The Council is required to submit reports to the House at each regularly scheduled convention of the AMA.

The House also acted on the recommendations of the earlier Committee on Planning and Development (Himmler Committee). Here are those recommendations as adopted by the House, sometimes after extensive revision:

Recommendations

That the AMA reaffirm, as a statement of the primary purpose and responsibility of the Association and the medical profession, "the promotion of the art and science of medicine and the betterment of public health," and, as part of this purpose, apply all possible effort to make medical services of high quality available to all individuals.

That the Association has the duty to guide and assist the medical profession in the attainment of this objective.

That the American Medical Association recognize the need for multiple methods of delivering medical services, and that it encourage and participate in efforts to develop them.

That, in the interest of attracting the

most highly qualified candidates to the field of medicine, it simultaneously make every effort to maintain and create incentives in medical practice. Among these incentives are a multiplicity of practice options, maximum professional independence and freedom of choice for both physicians and patients.

Health is a state of physical and mental well-being.

That the AMA expand its active role in planning and developing programs for medical care in all of its ramifications and that it encourage and assist state and county medical societies to do the same at their respective levels.

That, clearly recognizing the health of individuals has many aspects other than medical care, such as education, housing, environmental control, transportation, civil rights, and the alleviation of poverty, the American Medical Association continue to show an active, innovative and constructive interest in these non-medical components of health services.

That the AMA and the constituent and component medical societies seek the active cooperation of all physicians, both as individuals and as members of medical staffs, in medical service projects for areas in need of medical services.

That the AMA, through its Council on Health Manpower, in conjunction with county and state medical societies and other professional, education, and lay associations, continue to explore and develop expedients to overcome health manpower shortages.

That the Association, in its future declarations and activities directed toward the alleviation of shortages in health services and personnel, underscore the fact that these shortages are not due merely to an insufficient number of health professionals across-the-board, and emphasize that maldistribution of practitioners geographically by profession, and by specialty is an equally important factor in depriving communities of an adequate supply and spectrum of health services.

That the Association publicize the reasons for the maldistribution, as outlined in this section, and stress that the voluntary correction of these deficiencies requires public cooperation and community action in addition to the measures taken by the health professions.

That an appropriate Committee of the AMA immediately begin to formulate a policy on physicians' assistants, particularly with regard to their responsibilities, limitations on their services, and supervision of their services by qualified physicians.

That the AMA reaffirm the principle that the basic responsibility for the medical care of patients lies with their physicians of record and that that responsibility cannot be legally or morally delegated.

That the AMA approve in principle certification of educational programs for physicians' assistants but oppose licensing of these individuals by any state agency.

That the Association's Law Division, upon request, assist the state medical societies in identifying and avoiding any legal hazards that may accompany the employment of physicians' assistants.

In seeking as its goal the highest quality and availability of patient care, the American Medical Association advocates factual investigation and objective experimentation in new methods of delivery of health care, while still maintaining faith and trust in the private practice of medicine and pride in its accomplishments.

That the Association, in appropriate public statements, emphasize the concept that differences in education, state laws, culture and income levels create problems that may necessitate different systems of delivering medical care for different population groups and different geographic areas.

Urge state medical associations to establish bureaus or departments of economic research, development and planning to study, develop and disseminate data concerning the economic aspects of medical practice.

Through the AMA's Departments of Survey Research and Economic Research, continue to assist state associations in collecting such data and to act as a clearinghouse for data so gathered.

Encourage state medical associations to designate representatives to deal energetically with third party agencies and programs, utilizing the concept of usual, customary or reasonable charges.

That the AMA reiterate its support of sound, existing mechanisms, such as public grievance and adjudication committees, and utilization and peer review committees, which state and county medical societies have found to be most appropriate and effective for the consideration of fees and the costs of medical and related care.

Endorse the principle of voluntary, life-long postgraduate study for all physicians and continue and accelerate the development of programs and incentives for such study.

That the AMA encourage and assist all state medical associations to devise programs for voluntary post-graduate study designed to maintain medical education at the optimum level with the primary objective of assisting the physician in rendering professional services to his patients. These programs of post-graduate study should be mindful of the many demands on the time of the busy physician, and his responsibilities to his patients and his practice, and should be least disruptive to the provision of medical services.

That the Association obtain information from each state medical society as to whether special requirements have been imposed on physicians who render services to patients under the provisions of tax-supported programs and obtain the specifics of what those requirements are.

That in those states where the health or welfare departments have imposed special requirements on physicians to participate in their programs, the medical society reject those requirements and that, if the need for such regulation can be demonstrated, the state medical society, education department, and health department cooperatively develop standards to be incorporated into the education law and enforced on all physicians of that state, thereby eliminating double standards for medical practice and restoring the licensing authority to the proper agency.

The AMA, on the basis of the data received from the state medical societies, (1)

continue to identify the services that comprise good medical care; (2) develop guidelines that state and county medical societies may use in evaluating needs and priorities of medical services in their respective areas, and (3) ensure that these data and guidelines are widely distributed and publicized.

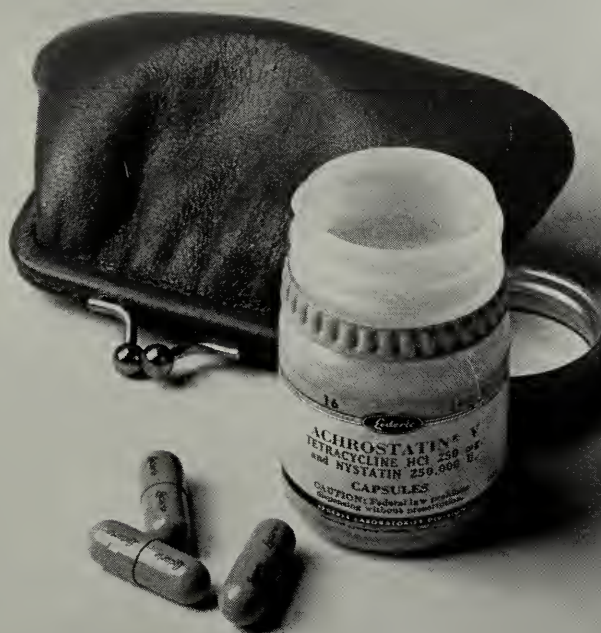
That the present structure of the Association be retained and that it be strength-

ened by improvements and modifications in its function.

That on implementation of the program for organization and reorganization, a planning council with appropriate subcommittees be formed for the purpose of processing data and formulating policy recommendations for the consideration of the Board of Trustees and the House of Delegates.

* * *

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President's Page



TOM E. NESBITT

An increasing number of questions concerning physicians' fees are appearing from a variety of sources. The determination of any individual fee remains the sole prerogative and responsibility of the physician, so long as he continues to practice under a "fee-for-service" system. The fee determined becomes a contract between the physician and his patient. As physicians, it is our responsibility to make certain that our patients understand this relationship and in turn clarify for them the role of a third party (as an insurance company or an agency of the Federal Government) in satisfying the contractual agreement between the doctor and his patient. All too often our patients have no real understanding of precisely what these relationships are that exist between patient, doctor, and government or insurance carriers.

Major changes in physician reimbursement under Medicaid and Medicare are currently being made. As of July 1, 1970, the Department of Public Health of the State of Tennessee began paying physicians their usual and customary charges on behalf of welfare patients who received services as recipients of Title XIX benefits. We applaud this decision by the Policy Review Committee of the State of Tennessee. Their action acknowledges the cooperative effort of Tennessee physicians in making the Medicaid program function in a manner consistent with good medical practice while simultaneously exercising concern for the proper containment of medical care costs. Under existing Federal regulations, however, the State is not allowed to pay more than the 75th percentile of "usual and customary" under the Title XIX program. It is also illegal for a physician to collect any additional sum from a patient for whom he has been paid by the State under the Medicaid program.

The Department of HEW has also issued recent guidelines regarding physician payments under Medicare. At present, payments are being made to physicians on the basis of charge profiles obtained prior to January 1, 1969. The Part "B" carriers are required to pay 80% of the 83rd percentile of such charges on this basis. The patient is expected to pay the remaining 20% of what the carrier determines to be the 83rd percentile of the usual and customary fee of that physician. If pending changes in the Social Security Act do become law (already passed the House and being considered in Senate), the guidelines will be changed to require the carrier for Medicare to pay no more than 80% of the 75th percentile of "usual and customary." However, the individual charge profile screens will be updated to include the entire year 1969, to allow some increase in charges as a reflection of increased expenses. It can be anticipated that these guideline changes will very likely result in a significant change in the payment for physician's services under the Medicare program.

Undoubtedly, many more doctors will be less inclined to take assignment of benefits under Medicare with these new guidelines. The "assignment route" makes it *illegal* for a doctor to collect more than what is determined to be the "allowable charge" as determined by the Part "B" carrier (80% from Medicare, 20% from patient). When the patient's direct assignment of benefits to the doctor is *not* accepted, then the doctor is free to recover his "usual, customary and reasonable" fee without being instructed as to his "allowable charge." Experience has proven this latter choice to be imminently superior to the "assignment route." It requires an understanding secretary to explain details to families and patients, and assist in the filing of a properly documented (itemized statement) claim form. Its dividends are not only monetary, but more rewarding in the creation of a sense of responsibility and dignity among our older patients who appreciate an opportunity to discharge their obligations in a traditional manner.

Sincerely,

A handwritten signature in cursive script, reading "Tom E. Nesbitt".

M.D.

President

THE JOURNAL

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TENNESSEE MEDICAL ASSOCIATION

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AUGUST, 1970

EDITORIAL

THE TOLBUTAMIDE CONTROVERSY

During the past several months much newspaper space, radio and television time has been devoted to the merits and risks of tolbutamide therapy in the treatment of adult onset diabetes. The study which prompted the controversy was one recently presented by The University Group Diabetes Program on the effects of hypoglycemic agents on vascular complications in patients with adult onset diabetes. Approximately 1000 patients with adult onset diabetes were assigned to one of five treatment groups and followed for five years. The treatment groups included placebo, tolbutamide, insulin standard, insulin variable and phenformin groups. Since the phenformin group had not been followed for the full five years, the results of this treatment group were not evaluated in this original report. The group receiving the placebo were actually on diet alone. Those taking tolbutamide were on diet and 500 mgm of tolbutamide before each meal irrespective of the levels of blood sugars. Those in the insulin standard group were given a constant number of units of

NPH insulin before breakfast regardless of blood sugar levels and the insulin variable group had a varying NPH insulin dose depending on the levels of blood sugar control. It was of interest to note that although the fasting blood sugars in each treatment group dropped initially, at the end of five years the fasting blood sugars in each group, with the exception of the insulin variable group, had returned to pre-treatment levels.

In the group of 823 patients in the four treatment groups which had completed the five year period of observation, 89 deaths were reported. The mortality percentages were 10.2, 14.7, 9.5 and 8.8 for the placebo, tolbutamide, insulin standard and insulin variable groups.

Sixty-nine deaths were attributed to cardiovascular causes, comprising 4.9, 12.7, 6.2 and 5.9 per cent of patients in the placebo, tolbutamide, insulin standard and insulin variable groups. No cause for the excessive cardiovascular mortality in the tolbutamide-treated group could be identified.

These studies although they are impressive, need confirmation by other workers and emphasize the desirability of controlling patients on diet alone where effective control can be achieved without hypoglycemic agents. Before the advent of oral hypoglycemics for adult onset diabetes, diet alone was usually tried at the onset of therapy and insulin added only if control with diet alone proved ineffective. With the advent of the pill, less emphasis was placed on a strict dietary regime because the convenience of oral hypoglycemics lulled the physician who then depended on the tablet, rather than diet for control, into a false sense of security. The study now suggests that possibly this attitude on the part of the physician may have been responsible for an additional increase in patient mortality. Emphasis on the importance of dietary control is one of the more important portions of the study which was not reported in the public press.

It should also be noted that in this study the incidence of death was less in those whose blood sugars were kept closer to normal (insulin variable group) than in those in the other groups where blood sugar

levels tended to be elevated over the five year period. This portion of the study has also not been emphasized and yet confirms what many diabeticians have believed, yet found difficult to prove. In other words, good control seems to promote better long-term health in the diabetic.

Finally, it should be noted that this study does not duplicate the treatment regime in the physician's office where personal attention to details, the one-to-one physician-patient relationship and maintenance of good blood sugar control in each patient regardless of treatment regime employed are lacking in the UGDP study reported. On the basis of present evidence, it seems wise for the private physician to maintain his patient on that regime—diet alone, oral sulfonylureas, or insulin—which has been shown to be most effective for his particular patient; to re-emphasize the necessity for meticulous dietary control and shift those patients now employing tablets or insulin to diet alone if good control can be maintained by this regime; and to watch with interest other reports for further evidence which may confirm or negate these impressive UGDP findings which have precipitated the present controversy.

A.B.S.

IN MEMORIAM

Caldwell, Turner A., Jefferson City. Died June 12, 1970, Age 78. Graduate of Vanderbilt University School of Medicine, 1918. Member of Knoxville Academy of Medicine.

Ekvall, Leslie D., Dunlap. Died June 11, 1970, Age 68. Graduate of Loma Linda University School of Medicine, 1932. Member of Chattanooga-Hamilton County Medical Society.

Goltman, David W., Memphis. Died June 28, 1970, Age 66. Graduate of University of Pennsylvania, 1929. Member of Memphis-Shelby County Medical Society.

Lewis, Milton S., Nashville. Died June 26, 1970, Age 77. Graduate of Vanderbilt University School of Medicine, 1916. Member of Nashville Academy of Medicine.

Swanay, Oattie Milburn, Rogersville. Died June 18, 1970, Age 88. Graduate of Louisville Medical College, 1907. Member of Hawkins County Medical Society.

Wright, J. Leo, Memphis. Died June 18, 1970, Age 50. Graduate of New York College of

Medicine, 1950. Member of Memphis-Shelby County Medical Society.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES



New Members

The Journal takes the opportunity to welcome these new members into the Tennessee Medical Association.

BLOUNT COUNTY MEDICAL SOCIETY

Robert W. Seaton, M.D., Maryville

CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY

Cauley Wilbur Hayes, Jr., M.D., Chattanooga

Charles E. Richardson, M.D., Chattanooga

CONSOLIDATED MEDICAL ASSEMBLY OF WEST TENNESSEE

Fred Looper, M.D., Jackson

Donald S. LaFont, M.D., Jackson

Barnett Scott, M.D., Jackson

DICKSON COUNTY MEDICAL SOCIETY

Daniel B. Drinnen, M.D., Dickson

GREENE COUNTY MEDICAL SOCIETY

Ramon Azaret, M.D., Greeneville

KNOXVILLE ACADEMY OF MEDICINE

Robert E. Hall, M.D., Knoxville

Thomas Findley, M.D., Knoxville

Fred W. Hodge, M.D., Knoxville

Ronald Perry, M.D., Knoxville

Roland F. Regester, M.D., Knoxville

MAURY COUNTY MEDICAL SOCIETY

Roy F. Harmon, Jr., M.D., Columbia

MEMPHIS-SHELBY COUNTY MEDICAL SOCIETY

William M. Adams, Jr., M.D., Memphis

Charles R. Arkin, M.D., Memphis

Jose Luis Castillo, M.D., Memphis

Charles E. Couch, M.D., Memphis

Jackie Jackson Cox, M.D., Memphis

Robert I. Lerman, M.D., Memphis

David F. Mobley, M.D., Memphis

Victor R. Scarano, M.D., Memphis

James A. Yarrow, M.D., Memphis

NASHVILLE ACADEMY OF MEDICINE

Clyde W. Alexander, M.D., Nashville

Richard L. Callaway, M.D., Nashville

Paul S. Crane, M.D., Nashville

Thomas J. Davis, M.D., Nashville
 William L. Downey, M.D., Nashville
 Laury M. Fisher, M.D., Nashville
 John R. Furman, M.D., Madison
 Norman D. Hasty, M.D., Nashville
 Marc H. Hollender, M.D., Nashville
 Charles G. Norton, M.D., Nashville
 Bradley E. Smith, M.D., Nashville
 Murray W. Smith, M.D., Nashville
 Clarence S. Thomas, Jr., M.D., Nashville
 Shannon W. Turney, M.D., Nashville

ROANE-ANDERSON COUNTY

MEDICAL SOCIETY

Donald Hartman, M.D., Oak Ridge

RUTHERFORD COUNTY MEDICAL SOCIETY

George S. Hester, M.D., Murfreesboro
 Elizabeth Rhea, M.D., Murfreesboro
 H. Millard Smith, M.D., Woodbury
 Tom A. Turner, M.D., Murfreesboro

SULLIVAN-JOHNSON COUNTY

MEDICAL SOCIETY

Donald B. Aspley, M.D., Kingsport

WASHINGTON-CARTER-UNICOI COUNTY

MEDICAL SOCIETY

Norman M. Sawyer, M.D., Johnson City

Knoxville Academy of Medicine

The Knoxville Academy of Medicine, along with physicians from St. Mary's, Presbyterian, and University Hospitals, is sponsoring an advanced course on Emergency Medical Care of the Sick and Injured. The course began on June 29 and will be conducted through October 5 at St. Mary's Hospital, whose administration has offered its entire teaching facilities at no cost. Dr. A. L. Jenkins, Director of the Knoxville Emergency Physicians Group and Chairman of the Academy's Emergency Medical Technician Training Committee is directing the course.

The purpose of the course is to train medically those persons who are officially responsible for giving immediate care to the injured and acutely ill and transporting them to a medical department. Approximately 100 men are participating in the course, representing ambulance workers, law enforcement officers, and fire fighters. Written and oral examinations will be given and those passing will receive a certificate for completing the course.

Physicians who will teach the course include: Dr. C. Harwell Dabbs, Chairman of the Medical Service Committee of the Knoxville Academy of Medicine; Drs. Richard R. Jost, Herschel King, Jerry Rogers and

Robert Lash, University Hospital; Dr. Joseph I. Garcia, Presbyterian; and Drs. James C. Prose, Henry S. Nelson, Thomas L. Ray, Thomas Stevens, Fred Brown, and Jenkins, St. Mary's.

Northwest Tennessee Academy of Medicine

The Northwest Tennessee Academy of Medicine, which represents the counties of Dyer, Lake, Lauderdale, and Obion, has contributed two \$500 Nursing Scholarships to the University of Tennessee at Martin.

Dr. Robert E. Clendenin, Union City, is President of the Academy and Dr. Robert L. Harrington, Dyersburg, is Secretary.

NATIONAL NEWS

The Month In Washington

(From Washington Office, AMA)

An American Medical Association proposal for peer review for the medicare and medicaid programs drew favorable reaction from members of the Senate Finance Committee.

Peer review was one part of a three-point program which Dr. Gerald D. Dorman, the outgoing president of the AMA, offered in testimony at a Senate Finance Committee hearing on medicare and medicaid.

Dr. Dorman and Dr. Julius W. Hill, president of the National Medical Association, testified together. They jointly urged on behalf of their organizations that Congress replace medicaid with a national health insurance program subsidized by the federal government.

The AMA health insurance proposal, which initially was approved by the AMA House of Delegates in 1968, was similar to the plan President Nixon included recently in his proposed revised new national welfare program. He said he would send such legislation to Congress early next year.

Congress is not expected to take up this year proposals for national health insurance. But reaction to the peer review proposal was highly encouraging, and pros-



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INDICATIONS: SYNTHROID (sodium levothyroxine) INJECTION is specific replacement therapy for diminished or absent thyroid function resulting from primary or secondary atrophy of the gland, congenital defect, surgery, excessive radiation, or antithyroid drugs. It is indicated in myxedematous coma and other thyroid dysfunctions where rapid replacement of the hormone is required. When a patient does not respond to oral therapy, SYNTHROID (sodium levothyroxine) INJECTION may be administered intravenously.

PRECAUTIONS: As with other thyroid preparations, overdose may cause diarrhea or cramps, nervousness, tremors, tachycardia, insomnia and continued weight loss. These effects may become apparent in from 4 days to three weeks. Therefore, patients should be kept under close observation. Medication, in such cases, should be stopped for 2 to 6 days, then resumed at a lower level. In patients with diabetes mellitus, look for possible changes in metabolic activity which may affect insulin or other antidiabetic drug dosage requirements.

CONTRAINDICATIONS: Thyrotoxicosis, acute myocardial infarction.

SIDE EFFECTS: Side effects are secondary to increased rates of body metabolism: sweating, heart palpitations with or without pain, leg cramps, weight loss, diarrhea, vomiting and nervousness. Myxedematous patients with heart disease have died from abrupt increases in dosage of thyroid drugs. In most cases, a reduction in dosage followed by a more gradual adjustment upward will indicate the patient's dosage requirements without the appearance of side effects.

DOSAGE AND ADMINISTRATION: In myxedematous stupor or coma, with no evidence of severe heart disease, 200 to 400 mcg. of SYNTHROID (sodium levothyroxine) INJECTION may be administered intravenously utilizing a solution containing 100 mcg. per ml. Detectable effects are usually observed by the sixth hour after injection and are fully appreciated during the following day. A repeat injection of 100 to 200 mcg. may be given on the second day if significant improvement has not occurred. The intravenous use of sodium levothyroxine in myxedematous coma is advantageous because it produces a predictable increase in the concentration of protein-bound iodine, eliminates the need for multiple doses until oral therapy is reinstated, circumvents the uncertainty of oral absorption, and avoids the risk of pulmonary aspiration.

SUPPLIED: SYNTHROID (sodium levothyroxine) INJECTION is supplied in 10 ml. vials containing 500 mcg. of lyophilized active ingredient and 10 mg. of Mannitol, N.F.; a 5 ml. vial containing Sodium Chloride Injection, U.S.P. is provided as diluent.

Also supplied as SYNTHROID (sodium levothyroxine) TABLET in color coded compressed tablets, and in seven strengths: 0.025 mg. (orange), 0.05 mg. (white), 0.1 mg. (yellow), 0.15 mg. (violet), 0.2 mg. (pink), 0.3 mg. (green), and 0.5 mg. (blue). Each strength is supplied in bottles of 100 and 500 tablets.

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pects for Congressional approval this year appeared good. Senator Wallace F. Bennett (R., Utah), a finance committee member, directed the committee's staff to work with AMA staff representatives in drafting such legislation as an amendment to a bill revising medicare and medicaid.

The presidents of the AMA, with 223,000 members, and the predominantly negro NMA gave assurances at the finance committee hearing of the medical profession's cooperation in solving the nation's health care problems. It was the first time that spokesmen for the two leading medical associations had testified together before a Congressional committee.

Dr. Dorman said, "the medical profession hopes to see the nation pursue" the three-point program in efforts to provide quality health care for everyone as economically as possible.

Dr. Hill said the insurance plan would work better than medicaid in the ghettos. He also defended physicians against accusations that they have been profiteering under medicaid and medicare.

The first two parts of the AMA program comprised the association's "medicredit" health insurance plan. The third, peer review, "is a way to assure both scientific quality and economic reasonableness in the medical and health care people get," Dr. Dorman said.

"Our first program would meet the problems of the Title XIX medicaid program," Dr. Dorman said. "Under our plan, each low income person or family would receive a certificate for the purchase of a qualified and comprehensive health insurance plan. The protection would be theirs without expense or contribution since the cost of the program would be borne entirely by the federal government.

"The second offers tax credits, on a sliding scale based on the tax liability of a family, for the purchase of qualified health benefits coverage. For those with moderate or higher levels of income, the program would provide cash incentives, through income tax credits, to encourage them to protect themselves against major health care costs.

"The third part of our program calls for a structured peer review mechanism to in-

sure high quality of care and to prevent abuses of the medicare and medicaid programs."

Dr. Dorman noted that the committee's staff in a report last February on medicare-medicaid suggested that organized medicine regulate itself.

"We agree, and propose a program providing for professional review of matters bearing on reasonableness of charges for, need for, and the quality of services rendered by, the provider of medical or other health services," he said.

In a speech on the Senate floor, Bennett said there is deep concern over the high costs of medicare and medicaid. He complimented the AMA on advancing peer review as a means of curbing these costs. He said:

"I believe the American people are justifiably concerned over the tremendous costs of health care. Much of that concern, it seems to me, is a product of a very real feeling that we are not getting what we are paying for. I believe, equally, that much of the apprehension, anxiety, and suspicion now prevalent—for better or worse—with respect to those responsible for health care would disappear if professional standards review organizations were established and functioned effectively. It seems to me that the American people are entitled to know that American medicine shares their concern—and more importantly—proposes to do something substantial about it through means of professional standards review organizations. . .

"I believe that physicians, properly organized and with a proper mandate, are capable of conducting an ongoing effective review program which would eliminate much of the present criticism of the profession and help enhance their stature as honorable men in an honorable vocation willing to undertake necessary and broad responsibility for overseeing professional functions. If medicine accepts this role and fulfills its responsibility, then the Government would not need to devote its energies and resources to this area of concern. Make no mistake: the direction of the House-passed social security bill is toward more—not less—review of the need for and quality of health care. I believe my amendment would provide the necessary means by which

organized medicine could assume responsibility for that review."

Bennett said that, under his amendment, review groups would have responsibility for reviewing "the totality of care provided patients—including all institutional care." That responsibility he said, would be lodged, "wherever possible and wherever feasible," at the local community level. He said:

"Local emphasis is necessary because the practice of medicine may vary, within reasonable limits, from area to area, and local review assures greater familiarity with the physicians involved and ready access to necessary data. Priority should be given to arrangements with local medical societies—of suitable size—which are willing and capable of understanding comprehensive professional standards review. . .

"Under the amendment, the Secretary (of Health, Education and Welfare) could use state or local health departments or employ other suitable means of undertaking professional standards review only where the medical societies were unwilling or unable to do the necessary work, or where their efforts were only pro forma or token. Let me emphasize as strongly as possible that the thrust of this proposal is to have physicians, as a group, evaluate physicians and the services they provide and order as individuals."

Bennett said that the review committees should determine that only medically necessary services are provided by physicians, hospitals, nursing homes and pharmacies, and that these services meet proper professional standards.

Disciplinary measures, he said, would be in proportion to the offense and could include: 1) monetary penalties, 2) suspension from federal programs, 3) exclusion from federal programs, 4) civil or criminal prosecution, and 5) steps leading to the suspension or revocation of professional licensure.

Dr. Hill directed his testimony before the finance committee mainly to medical care of the blacks and other poor people, particularly in ghettos. He took issue with the committee staff report which, he said, "by implication attacked the very physicians working closest to the poor and

treating them." He said restrictions upon physicians' fees, as advocated in the report, would make more acute the already critical shortage of physicians in ghettos.

"To those who read the entire report, there were a number of very complimentary things said about all physicians," Dr. Hill said. "But the primary message, the one seized upon by the press and broadcast across the country, appeared to be that any doctor earning a substantial amount of money from medicare-medicaid was somehow cheating both the government and his patients.

"It was bitterly ironic. To work 60 and more hours a week in the ghetto, and to be fairly paid, was suddenly prima facie evidence of wrong-doing.

"The report was also interpreted so that the blame for the rising cost of medicare-medicaid was directed at the physician—and particularly those caring for the poor.

"Therefore, we of the National Medical Association take strong exception. The implications and accusations of that report were grossly unfair. It is difficult enough to get physicians to practice among the poor. . . If these men, professionals committed to providing care, are to be subjected to irresponsible accusations for the size and success of their ghetto practices, it will very soon be impossible to find a doctor among the American poor."

The associations showed the senators a brief movie of physicians practicing in a Chicago ghetto health center and in an Appalachian community clinic.

* * *

The National Communicable Disease Center of the U. S. Public Health Service said that not a single death from polio was reported in the nation last year.

It was the first time no death from the disease was reported since 1955 when regular polio surveillance was started. In addition to the absence of a death, the total number of cases of paralytic polio was only 19.

Before the introduction of polio vaccine during the mid-1950's, annual paralytic cases went as high as 21,300 with 1,400 deaths. The number of cases began to dwindle after use of the vaccine became widespread and 1960, with 230 cases, was

the last year when the number of deaths exceeded 100. In recent years, the death toll usually has been between 10 and 20.

Among the 19 paralytic cases last year, only one occurred in a person who had received a full series of anti-polio doses. The exception was a two-year old suffering from an inborn inability to form protective antibodies against bacteria and viruses.

An estimated 26.5 million doses of vaccine, most of it the oral type, was administered nationwide last year.

A federal health official warned that small outbreaks of polio still are possible in city slums and other areas where it is difficult to achieve 100 per cent immunization. There already have been 11 known cases and one death in the Rio Grande Valley citrus growing region of Texas where there was a problem of convincing parents of the need for immunizing.

MEDICAL NEWS IN TENNESSEE

Dr. W. W. Hubbard Honored

Dr. W. W. Hubbard, who retired in April after 28 years as medical director of the Middle Tennessee Chest Disease Hospital, was honored on June 26 when a portrait of him was dedicated at the Nashville hospital. The portrait was given to the hospital by friends of Dr. Hubbard from all areas of the state. Principal speaker for the occasion was Dr. R. H. Hutcheson, former Tennessee Commissioner of Public Health for 26 years. Dr. Arthur J. Viehman, who received his degree from the Vanderbilt School of Medicine in 1941, succeeded Dr. Hubbard as Medical Director of the hospital. He was previously Medical Director and Superintendent of the Jefferson Tuberculosis Sanatorium at Birmingham, Alabama.

A native of Birmingham, Alabama, Dr. Hubbard was graduated from the Vanderbilt University School of Medicine in 1926. When he joined the Tennessee Health Department in 1935, there were no state tuberculosis hospitals and the few county hospitals able to care for tuberculosis patients accepted only local residents. Dr. Hubbard accepted the challenge, and was a pioneer

in developing tuberculosis facilities and control in Tennessee. He was responsible for planning and directing construction of the four present chest disease hospitals in this state, located at Nashville, Memphis, Chattanooga and Knoxville. He helped establish a tuberculosis outpatient clinic at Vanderbilt Hospital, and was on the Vanderbilt School of Medicine faculty for many years.

In 1941, Dr. Hubbard became the director of the Nashville facility when the Middle Tennessee Tuberculosis Hospital was opened. The present building was constructed in 1953, serving mid-state patients primarily. During its early years, between 500 and 600 patients were admitted annually. Now, with tuberculosis under better control, an average of 360 patients are received each year, including those having other chronic pulmonary diseases. A total of 8,137 patients have been admitted to the hospital since 1941.

* * *

The Upper Cumberland Medical Society held its annual two-day scientific program on June 16 and 17 at the Cloyd Hotel in Red Boiling Springs. The meeting was held in an informal atmosphere and was opened to the public.

The highlight of the meeting was a panel on "Youth and Psychedelics—What Next." Participants on the panel were Lee-Allen Ford, Director of the Alcoholism and Drug Abuse Program for the Tennessee Department of Mental Health, Federal narcotics officer Arthur Small, and a group of former drug addicts. Other topics discussed at the meeting were education and research in cancer, transplant rejection, surgical and medical procedures in Vietnam, and other recent advances in surgical techniques. All of the speakers were from the Middle Tennessee area, primarily from Nashville.

Newly elected officers for the society are: Dr. Fred Goldner, Nashville, President; Dr. Jack Batson, Nashville, President-Elect; Dr. L. M. Freeman, Granville, Secretary-Treasurer; and Dr. Kirkland Todd, Nashville, Assistant Secretary-Treasurer.

Next year, the Society will hold its meeting on June 15-16, again at Red Boiling Springs.



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University of Tennessee Medical Unit

Dr. Richard R. Overman has been named acting dean of the College of Medicine, effective July 1. Associate Dean of the college for the past four years, Dr. Overman will serve as acting dean until a permanent replacement for Dean Maston K. Callison is named. Dr. Callison disclosed, several months ago, his plans to resign at the end of the fiscal year to enter the private practice of medicine.

A permanent replacement for Dr. Callison will not be chosen until a new Chancellor for the medical units is named. Dr. Jack Williams, a vice president in the University of Tennessee system, has been chancellor pro tem since the resignation of Dr. Homer Marsh in January.

Dr. Overman has been a member of the Medical Units faculty since 1945, when he came to Memphis from the Columbia University College of Physicians and Surgeons. He did his undergraduate study at DePauw University and his graduate training at both Harvard University and Princeton University.

* * *

Dr. Barry E. Gerald has been named acting Chairman of the Department of Radiology, succeeding Dr. George Cooper, who joins the University of Virginia faculty on September 1. Dr. Gerald graduated from the University of Tennessee College of Medicine and has previously served as head of the section of diagnostic radiology at the medical units.

* * *

Vanderbilt University School of Medicine

The Vanderbilt University School of Medicine has received a \$505,340 five-year grant from the Ford Foundation to its Department of Obstetrics and Gynecology for a study in reproductive physiology. Dr. Bert W. O'Malley, who holds the Vanderbilt chair of reproductive biology and family planning, will direct the study into the basic research of reproductive biology.

* * *

Dr. Edward V. Staab, Assistant Professor of Radiology has received a grant from the James Picker Foundation in support of research and training in radiology. Dr. Staab

is studying the problems of radioisotope cisternography, or the flow patterns of cerebral spinal fluid through the brain. This is his second year to receive the Picker grant.

* * *

Dr. John B. Youmans, accepted the Outstanding Civilian Service Medal from Lieutenant General Hal B. Jennings, Jr., during a ceremony in Washington, D. C. He was praised for his contributions to military nutrition, and especially to the Army's Medical Research and Nutrition Laboratory at Fitzsimons General Hospital in Denver, Colo., a unit of the Medical Research and Development Command.

Dr. Youmans received both a bachelor's and a master's degree from the University of Wisconsin, his native state, and in 1919 earned a medical degree from Johns Hopkins Medical School. He has spent the majority of his career as an instructor and professor of medicine at various times at the Universities of Michigan, Vanderbilt and Illinois. In 1950 he became the Dean, Professor of Medicine and Director of Medical Affairs at Vanderbilt University.

From 1916 to 1917 he was an enlisted man in the Army assigned to a hospital train. During World War II, he was back on active duty as a colonel in the Army Medical Corps, assigned to the Office of the Surgeon General as Director of the Nutrition Division. While in that position, he traveled to the southwest Pacific to investigate the nutrition among U.S. troops there. He also evaluated the nutritional problems of Chinese troops in the China-Burma-India Theater of Operations in 1944. The next year he was in Europe assisting in nutrition surveys of civilian populations after the war's end.

Dr. Youmans helped persuade the Army's Surgeon General to begin a separate unit concerned with nutrition training and research. In 1946 he was released from the Army and became a consultant in nutrition to the Surgeon General.

While a consultant to the Interdepartmental Committee on Nutrition for National Defense, Dr. Youmans directed nutrition surveys in 1956 of the Armed Forces of Iran and Pakistan, and in 1958 surveyed 2

battalions of the Alaska National Guard and 10 native Eskimo villages.

He is a member of numerous scientific and professional societies and a noted author, particularly in the field of nutrition.



Mrs. William F. Mackey, president of the Woman's Auxiliary to the Tennessee Medical Association, displays an American Medical Association Education and Research Foundation (AMA-ERF) picture award presented to her during the national Auxiliary's recent convention in Chicago. The Tennessee Auxiliary received recognition for having the largest per capita donation per member.

PERSONAL NEWS

Dr. R. C. Kimbrough, Madisonville, recently named TMA's Physician-of-the-Year, has been named Alumnus of the Year by Hiwassee College. Dr. Kimbrough has practiced medicine in Monroe County for 62 years.

Dr. C. B. Roberts, Sparta, addressed the 50th Anniversary Meeting of the Sparta Civitan Club recently.

Dr. C. Robert Clark, Chattanooga, presented a "Disaster Nursing" program to the District 4 meeting of the Tennessee Nurses Association. Dr. Clark is Director of the Chattanooga-Hamilton County Rescue Service and Chairman of TMA's Committee on Emergency Medical Services.

Dr. Marcus J. Stewart, Memphis, has been appointed by the Governor to the Board of Trustees of the University of Tennessee.

Dr. Dale Beck, Nashville, was elected President of the medical staff of Madison Hospital.

Dr. J. R. Noonan, Dyersburg, discussed the need for a Coronary Care Unit at the Parkview Hospital at a recent meeting of the Halls Civic Club.

Dr. John B. Youmans, Franklin, was recently elected a Master by the American College of

Physicians. This honor is in recognition of his contributions to Internal Medicine and is the highest membership category in the 16,000 member international medical specialty society.

Dr. Walter Hardy, Knoxville, has been elected President of the Knoxville Urban League.

Dr. Rollin A. Daniel, Jr., Nashville, has moved his office to St. Thomas Hospital.

Dr. Clarence S. Thomas, Jr., has joined **Doctors W. C. Alford, Jr., R. N. Sadler and W. S. Stoney, Jr.**, Nashville, in the practice of cardiac, thoracic and general surgery.

Dr. David F. Fardon has joined the Knoxville Orthopedic Clinic in the practice of that specialty.

Dr. Sarah H. Sell, Nashville, has been elected Chairman of the Board of Directors of the Middle Tennessee Heart Association, succeeding **Dr. Morse Kochtitzky** of Nashville. Dr. Sell is the immediate past president of MTHA.

Dr. John L. Sawyers, Nashville, has been elected to membership in the prestigious American Surgical Association.

Dr. Lewis Anderson, Memphis, and **Dr. Bergein F. Overholt**, Knoxville, contributed articles to the Southern Medical Association which appeared in the July issue of the SMA Journal. Dr. Anderson co-authored an article entitled "IRRIGATION-SUCTION TECHNIC IN THE TREATMENT OF ACUTE HEMATOGENOUS OSTEOMYELITIS, CHRONIC OSTEOMYELITIS, AND ACUTE AND CHRONIC JOINT INFECTIONS" and the title of Dr. Overholt's article was "TECHNIC OF FLEXIBLE FIBERSIGMOIDOSCOPY."

Dr. L. Spires Whitaker, Chattanooga, was a principal speaker at the 22nd Annual Health Institute, sponsored by the TB & Respiratory Diseases Association of Greater Chattanooga, which was recently held in Chattanooga. Dr. Whitaker's topic was "Prevention of Respiratory Diseases."

ANNOUNCEMENTS

Calendar of Meetings 1970

State

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|------------|--|
| Oct. 19-20 | Tennessee Valley Medical Assembly, 18th Annual, Read House, Chattanooga |
| Nov. 4-6 | Tennessee Academy of General Practice, 22nd Annual Assembly, Civic Auditorium, Gatlinburg. |

National

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|-------------|--|
| Sept. 10-12 | American Association of Obstetricians and Gynecologists, Homestead, Hot Springs, Va. |
|-------------|--|

Sept. 13-15	Medical Progress Assembly, Municipal Auditorium, Birmingham
Sept. 14-17	American Hospital Association, Houston
Sept. 19-20	American Association of Ophthalmology, Las Vegas
Sept. 20-23	American Association of Medical Clinics, St. Francis, San Francisco
Sept. 25-Oct. 1	American Academy of General Practice, San Francisco
Sept. 30-Oct. 1	AMA Congress on Occupational Health, Century Plaza Hotel, Los Angeles
Oct. 5-9	American Academy of Ophthalmology and Otolaryngology, International Hotel, Las Vegas
Oct. 12-16	American College of Surgeons, Conrad Hilton Hotel, Chicago
Oct. 17-22	American Academy of Pediatrics, San Francisco Hilton, San Francisco
Oct. 25-29	American Association of Blood Banks, San Francisco Hilton, San Francisco
Oct. 25-30	American College of Chest Physicians, Century Plaza Hotel, Los Angeles
Oct. 29-Nov. 2	Association of American Medical Colleges, Biltmore Hotel, Los Angeles
Nov. 10-17	American Heart Association, Shelburne-Dennis Hotel, Atlantic City
Nov. 16-19	Southern Medical Association, 64th Annual Meeting, Dallas Memorial Auditorium, Dallas
Nov. 29-Dec. 2	American Medical Association, (Clinical Convention), Boston
Dec. 5-10	American Academy of Dermatology, Palmer House, Chicago
Dec. 9-12	American Academy of Cerebral Palsy, Shamrock-Hilton, Houston

30th Annual AMA Congress on Occupational Health

The AMA Council on Occupational Health will present its Annual Congress on Occupational Health on September 30-October 1, at the Century Plaza Hotel in Los Angeles. Eminent speakers from across the country will discuss varying topics of Occupational Health and Industrial Medicine. The opening address will be delivered by Dr. Walter C. Bornemier, President of the American Medical Association. There is no registration fee for the Congress and all interested persons are invited to attend. The program is acceptable for twelve and one-half

elective hours credit by the American Academy of General Practice.

Tennessee Valley Medical Assembly

The 18th Annual Tennessee Valley Medical Assembly will be held on October 19 and 20 at the Read House in Chattanooga. The Assembly, sponsored by the Chattanooga and Hamilton County Medical Society, Inc., will have symposiums on emergency medical care, endocrinology, gastroenterology, medicine-cardiology, artificial kidney, and pediatrics.

The featured speakers for the Conference include H. William Scott, Jr., M.D., Nashville; H. Earl Ginn, M.D., Nashville; Stewart A. Fish, M.D., Memphis; Noble O. Fowler, M.D., Cincinnati; James R. Jude, M.D., Miami; John T. Sessions, Jr., M.D., Chapel Hill, North Carolina; Frank G. Moody, M.D., Birmingham; Dwight E. Harken, M.D., Boston; Ronald C. Jones, M.D., Dallas; James L. A. Roth, M.D., Philadelphia; Robert B. Greenblatt, M.D., Augusta; William C. Waters, III, M.D., Atlanta; William G. Thurman, M.D., Charlottesville, Virginia; Neil L. Chayet, Attorney, Boston, and Kenneth M. Brinkhous, M.D., Chapel Hill, North Carolina.

The Annual Banquet will be held on October 19 and will feature Mr. Shearen Elebash, who builds humor and extraordinary artistry that has universal appeal.

A registration fee of \$25 should be enclosed with registration requests. Checks should be made payable to: Tennessee Valley Medical Assembly. Registration requests should be mailed to: Chattanooga Convention and Visitors Bureau, 399 McCallie Avenue, Chattanooga, Tennessee 37402.

The program is approved for 13 hours credit by the American Academy of General Practice.

September Continuing Education Courses

The American College of Physicians will present post-graduate courses entitled "Dermatological Diagnosis and Treatment for the Internist" and "Renal Diseases: Pathophysiology, Diagnosis and Management" during September. The dermatology course has been designed to familiarize physicians with the fundamentals of cutaneous examination by lecture and personal patient contact. In addition to lectures and clinical presentations, there will be informal group discussions. Arrangements have been made to have patient exhibitions and a discussion of genodermatoses at the Rosewood Training School. There will be a series of symposia on cutaneous drug reactions, superficial and deep mycotic infections, dermatropic virus infections, pyogenic infections, allergic dermatoses, occupational dermatoses, and eruptions attributed to emotional stimuli. Each lecturer will discuss the significance of the cutaneous lesions and their relationship to systemic illness. This course will be held at the University of Mary-

land School of Medicine in Baltimore on September 1-3, 1970.

The course on renal diseases has been designed to provide general physicians, internists, urologists, and nephrologists practical information which will be helpful in diagnosis and treatment and aid in the achievement of a better understanding of many renal and genitourinary problems encountered in their patients. Sessions will be devoted to hypertension, glomerular diseases, tubular and interstitial disorders, nephrolithiasis, infections of the urinary tract and problems of renal failure. This course will be held at the Mayo Clinic and Mayo Graduate School of Medicine at Rochester, Minnesota on September 9-11, 1970.

For information regarding registration, please

write: Edward C. Rosenow, Jr., M.D., Executive Director, American College of Physicians, 4200 Pine Street, Philadelphia, Pennsylvania 19104.

* * *

On September 17-19, a post-graduate course on "Pulmonary Function Tests in Management of Chest Disease" will be held at the Kentucky Medical Center in Lexington. This course is planned for physicians and technicians who have some responsibility for intensive care units and patients with chest disease. A \$35 fee will be charged. For further information, please contact: Frank R. Lemon, M.D., Associate Dean, Continuing Education, College of Medicine, University of Kentucky, Lexington, Kentucky 40506.

* * *

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T M A

THE VIEWING BOX

Drug Addiction—A Crime or a Disease?*

The addict is a sick individual. He needs hospitalization and care if he is to get off and stay off drugs. Yet, in the eyes of the law, such a person at best is a quasi-criminal. Possession of narcotics is illegal under Federal statutes—and it's almost impossible to be an addict without narcotics. But while Federal law does not consider addiction itself a crime, many states do, even when the addict is not in possession of drugs when arrested.

The argument about whether an addict should be handled by wardens or doctors has been going back and forth for many years. In the past neither approach has proven adequate.

The control of drugs and addiction became a police matter in 1914 with the passage of the Harrison Narcotic Act. After that, capture with the paraphernalia of the drug habit meant jail for the addict. And to the addict, jail means physical torture. When the drugs his body has grown to demand are abruptly stopped, he goes into "withdrawal." His muscles knot in severe cramps, he twitches, vomits; light and noise send him into fits of pain; he loses all control.

Despite its "tough" laws, the United States today still has a drug addiction problem unique in the Western world and is the chief market for illegal narcotics. Traffic in dope costs our citizens \$500 million annually—mostly in property stolen by addicts to buy satisfaction for their cravings.

On the other hand, initial attempts to deal with addiction through health service clinics were not effective either. Between 1919 and 1923, about 44 clinics were set up in various cities to supply drugs to addicts who could no longer get narcotics in the clamp-down after passage of the Harrison Act. Many addicts were even issued a supply of drugs to take home for self-administration so they wouldn't be popping

up at the clinics every few hours for a shot.

The clinics were supposed to keep addicts out of the hands of the criminal drug peddlers and thus wipe out the underworld's narcotics empire.

But the results were quite different. Criminals, prostitutes and drug-peddlers swarmed to some of the clinics in search of easy narcotics, creating local resentment against the clinics. Many addicts sold part of their free drug supply to others, causing more addiction. Others only had their appetite whetted by the free drugs and turned to underworld peddlers for more. Instead of drying up, illegal dope traffic spurted.

Some of the clinics functioned for only a few weeks, others for as long as 4 years. In the end they demonstrated that, with the knowledge then current, addicts could not be treated as outpatients.

The failure of both jails and outpatient clinics to control drug addiction doesn't leave us with an unresolvable dilemma, however. Medical and scientific leaders believe a middle-of-the-road approach can produce results. This would entail commitment of addicts—but as patients, not prisoners—coupled with extensive post-withdrawal rehabilitation under medical supervision.

A joint statement by the American Medical Association and the National Research Council said, "Historically society has found it necessary to employ legal controls to prevent the spread of certain types of illness that constitute a hazard to the public health. Drug addiction is such a hazard."

The 2 organizations urged:

"Measures designed to permit the compulsory civil commitment of drug addicts for treatment in a drug-free environment.

"The advancement of methods and measures toward rehabilitation of the addict under continuing civil commitment.

"After complete withdrawal, follow-up

*Prepared by the Communications Divisions of the American Medical Association.

treatment for addicts, including that available at rehabilitation centers.

"The development of research designed to gain new knowledge about the prevention of drug addiction and the treatment of addicted persons.

"The dissemination of factual information on narcotic addiction."

No one really knows why an addict is what he is. What studies have been made on the subject seem to indicate that the addict is basically an unstable person, often "overwhelmed with helplessness and frustrations."

The vast majority of addicts demand narcotics—heroin, morphine, and certain synthetics such as Demerol.[®] These are sedatives. They relax, create a feeling of withdrawal and sleepiness. A few drug users, however, want the exact opposite effect. They go in for stimulants which cause wakefulness, exhilaration, a feeling of mastery and power. But no matter whether the addict stupefies himself with sedatives or puffs himself up with stimulants, his quest is the same. He wants escape from himself and reality.

The "escape route" often begins with "reefers"—cigarettes made from the leaves of the female marijuana plant. (The more innocent male plant produces little more than hemp fibers for rope.) When smoked, marijuana induces a zombie-like effect that tends to stifle normal inhibitions.

From marijuana the addict soon gravitates to more potent drugs which supply bigger kicks. These are either sniffed, as in the case of cocaine, injected under the skin or into the muscle ("skin bombing"), or squirted directly into the blood vessels ("mainlining").

Neither marijuana nor the stimulants create any actual physical need. But they do create an emotional craving, a mental dependency that can be just as real to the addict as his need to breathe.

Narcotics, on the other hand, produce both psychological and physical dependence. Once pickled with narcotics, the nerves of the body will writhe in anguish unless they are calmed with more dope.

The granddaddy of all addicting drugs is opium. From it is refined heroin, morphine,

codeine, and similar sedatives so important to medicine for their pain-killing properties.

Ironically, heroin was introduced in 1898 as a nonaddicting replacement for morphine. One enthusiast hailed it as the "miracle" drug of the day. It was soon discovered, however, that the claims were utterly false. Heroin's addicting powers are so great that its use is now prohibited in this country, even in medical practice.

One thing the addict can't hide is the needle scars over veins where he injects himself. These are usually on the inner arm where blood vessels lie close to the skin. Since they make identification of an addict easy, some heroin users seek to disguise the scars with burns. Self-mutilation means little to them, but then so does life.

Suicide, usually from an overdose of narcotics, is not uncommon among addicts, although precise statistics are lacking. Others take an overdose by accident—their demands get too high, or they get a packet that is stronger in heroin than they've been used to.

But narcotics poisoning is not the only danger. In his frenzy for his shot the addict usually can't be troubled with precautions. Dirty home-made syringes (which can't be boiled anyhow), dirty needles, dirty drugs often lead to tetanus and other infections. Or, if a "community" needle is used, he may get hepatitis or a venereal disease.

Since he is an addict he doesn't seek medical help. That could lead to discovery. A study at one hospital showed that 100 per cent of addicts stricken with tetanus died because they had waited too long to seek treatment.

There is also a high death rate among babies born to addicted mothers. Since mother and child share the same blood supply before birth, the baby also becomes a drug addict. After delivery the child may go into withdrawal resulting in convulsions. Death may follow unless the doctor knows in advance what to expect. He seldom does. Addicts like to keep their secrets.

One expert speculated that 25 per cent of the Nation's crimes are related to narcotics addiction. Even higher figures have been reported for New York City, where 45

per cent of the known drug users dwell, and for Chicago, Los Angeles, and Detroit, the Nation's other major centers of addiction. Other experts point out that there are really no reliable statistics on the point.

Another point for debate is whether addicts turn to crime in order to buy narcotics, or whether it's the other way around—criminals become addicts. Regardless, one thing is clear. Crime and addiction have a strong link. And paradoxically, it's just as clear to many medical authorities that handling addicts as criminals is no way to clear up the problem.

Curing addiction is primarily a rehabilitation problem. At the 2 Public Health Service hospitals which treat addicts—Fort Worth, Texas and Lexington, Ky.—and at New York's Riverside Hospital, which cares mostly for teenagers, it has been found that as few as 10 per cent of the patients are known to stay off narcotics after their release.

The problem is that patients cannot be retained long enough for psychiatrists to get at the real cause of the addiction—the basic unrest and tension. Nor is there enough time to realign them to life as it really exists.

Dr. Nathan B. Eddy, Executive Secretary

of the National Research Council's Committee on Drug Addiction and Narcotics, said that all states have civil commitment laws for the mentally ill. These laws, he insists, should be used as a means of committing addicts.

Dr. Dale C. Cameron, Chairman of the AMA's Committee on Alcoholism and Addiction, also pointed out that mental health clinics and community rehabilitation centers must help the former addict when he returns to the community.

Addicts, he said, must be treated for what they really are, sick individuals. After medical treatment for the drugged body must come psychiatric treatment for the mind that thinks it must have drugs.

Criminal acts cannot be overlooked, but to merely jail addicts, or even to put them in hospitals until the physical need for drugs has dried up, is not nearly enough, he explained. For outside the prison or hospital the person who has used narcotics will find the same old world, the same old problems. Unless he is better equipped mentally to meet these, he will soon seek the same old escape.

(Reprinted from the *Medical Annals of the District of Columbia*,
February 1970)

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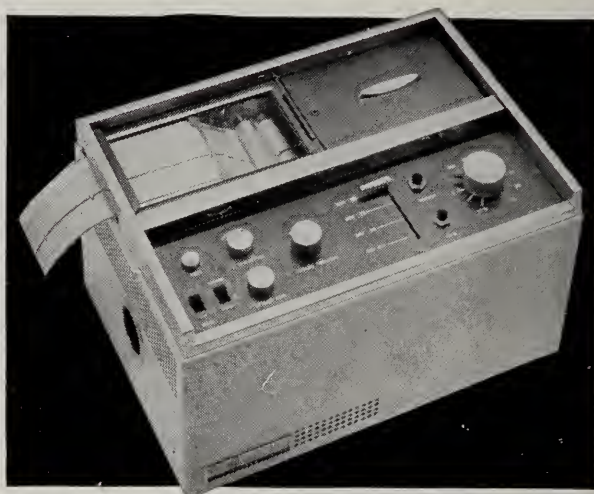
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18TH ANNUAL ASSEMBLY

Monday, October 19, 1970

7:30 REGISTRATION BEGINS

9:00 WILLIAM SCOTT, JR., M.D., Prof. and Chairman, Dept. of Surgery, Vanderbilt University School of Medicine, Nashville, Tennessee, "*Massive Jejunio-Ileal Shunt in Morbid Obesity.*"

9:30 JAMES R. JUDE, M.D., Div. of Thoracic and Cardiovascular Surgery, University of Miami, Miami, Florida, "*Indications, Evaluation and Current Surgical Treatment of Ischemic Myocardial Disease.*"

10:00 A.M. INTERMISSION—EXHIBIT VISITATION

10:30 STEWART A. FISH, M.D., Prof. and Chairman, Dept. of Obstetrics and Gynecology, University of Tennessee College of Medicine, Memphis, Tenn., "*New Concepts in Obstetric Analgesia.*"

11:00 FRANK G. MOODY, M.D., Prof. of Surgery; Director, Gastrointestinal Division, University of Alabama Medical Center, Birmingham, Ala., "*Surgical Management of Portal Hypertension.*"

11:30 RONALD C. JONES, M.D., Associate Prof., Dept. of Surgery, University of Texas, Southwestern Medical School, Dallas, Texas, "*Abdominal Trauma.*"

MONDAY LUNCHEONS

Emergency Care Symposium

12:30 P.M. to 4:00 P.M.—CONTINENTAL ROOM—READ HOUSE

Speakers:

WILLIAM SCOTT, JR., M.D., whose subject will be "*Shock*"

JAMES R. JUDE, M.D., "*Cardiac Resuscitation*"

NEIL CHAYET, Atty., "*Legal Aspects*"

WM. G. THURMAN, M.D., "*Drug Reactions*"

Moderator: C. ROBERT CLARK, M.D.

Endocrinology Symposium

12:30 P.M. to 4:00 P.M.—CHESTNUT ROOM—READ HOUSE

Speakers:

ROBERT GREENBLATT, M.D., Augusta, Ga.

STEWART FISH, M.D., Memphis, Tenn.

Moderator: ROBERT G. DEMOS, M.D.

— End of Day —

Tuesday, October 20, 1970

8:00 REGISTRATION BEGINS

9:00 WILLIAM G. THURMAN, M.D., Prof. and Chairman, Dept. of Pediatrics, University of Virginia School of Medicine, Charlottesville, Va., "*Immunizations—Value Today and the Problems They Present.*"

9:30 KENNETH M. BRINKHOUS, M.D., Prof. of Pathology and Chairman, University of North Carolina, "*Hemorrhagic Disorders.*"

10:00 A.M. INTERMISSION—EXHIBIT VISITATION

10:30 JAMES L. A. ROTH, M.D., PH.D., Dir., Institute of Gastroenterology, Presbyterian University of Pennsylvania Medical Center, Philadelphia, Pa., "*Toxic Megacolon Complicating Ulcerative Colitis.*"

11:00 H. EARL GINN, M.D., Chief, Nephrology Division, Assoc. Prof., Medicine and Urology, Vanderbilt University Medical Center, Nashville, Tenn., "*Management of Chronic Renal Failure.*"

11:30 NOBLE O. FOWLER, M.D., Prof. of Medicine, Cardiac Research Laboratory, University of Cincinnati, Cincinnati, Ohio, "*Clues to Cardiac Diagnosis From Inspection of the Patient.*"

TUESDAY LUNCHEONS

Gastroenterology Symposium

12:30 P.M. to 4:00 P.M.—CONTINENTAL ROOM—READ HOUSE

Speakers:

FRANK MOODY, M.D., Birmingham, Ala.

JAMES A. ROTH, M.D., Philadelphia, Pa.

JOHN T. SESSIONS, M.D., Prof. of Medicine, Univ. of N. C. School of Medicine, Chapel Hill, N. C.

Moderator: TIM J. MANSON, M.D.

Medicine-Cardiology Symposium

12:30 P.M. to 4:00 P.M.—PARLOR C—READ HOUSE

Speakers:

NOBLE FOWLER, M.D., Cincinnati, Ohio

DWIGHT E. HARKEN, M.D., Clin. Prof. of Surg., Harvard Medical School, Boston, Mass.

Moderator: MAURICE RAWLINGS, M.D.

Artificial Kidney Symposium

12:30 P.M. to 4:00 P.M.—PARLOR E—READ HOUSE

Speakers:

H. EARL GINN, M.D., Nashville, Tenn.

WILLIAM C. WATERS, III, M.D., Assoc. Prof. of Medicine, Emory Univ. School of Medicine, Atlanta, Ga.

Moderator: JESSE L. WILLIAMS, M.D.

PEDIATRIC LUNCHEON

12:30 P.M. to 4:00 P.M.—PARLOR A-B—READ HOUSE

Speaker: WILLIAM G. THURMAN, M.D.

Moderator: HOSSEIN MASSOUD, M.D.

After lunch, session to be held at Children's Hospital

Annual Banquet—Monday evening, October 19, 1970, at 7:30 P.M., Silver Ballroom—Read House

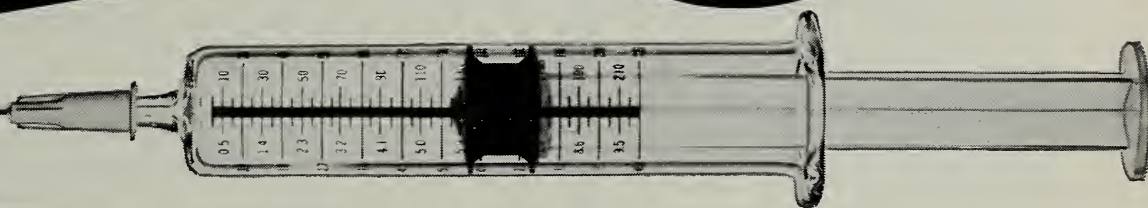
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Instructions to Contributors

Manuscripts submitted for consideration for publication in the JOURNAL OF THE TENNESSEE MEDICAL ASSOCIATION should be addressed to the Editor, Dr. R. H. Kampmeier, Vanderbilt University Hospital, Nashville, Tennessee 37203.

Manuscripts must be typewritten on one side of letter-weight paper. Either double or triple spacing and wide margins must be provided to facilitate editing which will be legible for the printer.

Bibliographic references should not exceed twenty in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to the style used in the American Medical Association publications, as—Alais, F. G.: What Is Known About it, J. Tennessee M. A., 35:132, 1950.

Illustrations should be mounted on white cardboard, numbered and identified with the author's name. The editor will determine the number, if any, of illustrations to be used with the Journal assuming the cost of engravings and cuts up to \$25. Engraving cost for illustrations in excess of \$25 will be billed to the author.

If reprints are wanted, the desired number should be indicated in the letter accompanying the manuscript. No reprints are provided free and a reprint cost schedule will be forwarded upon request.

The author points out the advantages of this drug in producing amnesia and its use for induction of anesthesia. Its use is free of cardiovascular or respiratory depression.

Diazepam Induction in the Poor Risk Patient *

JAMES R. HARP, M.D., Philadelphia, Pa.

Diazepam (Valium) is a derivative of 1,4-benzodiazepine. The drug has been widely used in recent years both as pre-anesthetic medication¹ and intravenously as means for avoiding general anesthesia for cardioversion.²⁻⁴

Diazepam is capable of producing marked sedation and amnesia without significant related cardiovascular or respiratory depression.^{5,6} The drug also has anticonvulsant properties.⁷

Marked cardiac and respiratory stability noted in this institution, when diazepam was used intravenously, in doses from 10 to 25 mg as an adjunct to nasotracheal intubation, led to consideration of its possible value as an induction agent in certain poor risk patients. In particular, diazepam induction appeared to offer a margin of safety in patients in whom danger of possible aspiration mitigated against gas induction or in whom marked intolerance to the cardiovascular depression associated with general anesthesia was anticipated.

The following case reports are representative of settings in which diazepam induction has been employed.

Case 1. A 55 year old white man with a long history of high dose steroid therapy for severe dermatomyositis developed profuse upper gastrointestinal bleeding. As part of his systemic disease the patient had severe pulmonary fibrosis with hypoxemia and hypocarbia. Conservative treatment was of no avail and the patient was brought to surgery in severe shock, having received 20 units of blood. He was tachypneic with a respiratory rate of 40. The heart rate was 160, and the BP 50mm Hg systolic. The patient had a gradually falling urinary out-

put and was anuric when he arrived for operation. He was restless, disoriented, agitated, and was unable to cooperate. While whole blood was being infused under pressure through warming coils, diazepam induction using 2 mg increments intravenously was begun while 100% oxygen was administered by mask. Over approximately 5 minutes, 8 mg of diazepam produced excellent sedation with no evident cardiovascular or respiratory depression. Topical anesthesia of the trachea was produced with 3 ml of 1.5% lidocaine under direct laryngoscopy and intubation with a No. 38 cuffed McGill tube was easily accomplished. A No. 14 angiocath was inserted in the external jugular vein revealing a central venous pressure of 7 cm of water. Fluroxene 4 to 8% in nitrous oxide-oxygen 3:3 completed induction.

The subsequent course of anesthesia was one of continuing improvement. After surgical control of bleeding, 7 units of whole blood, 200 ml 5% dextrose in Ringer's lactate + 44 mEq sodium bicarbonate, and 2 gm calcium gluconate, the BP was 120/60, P 120, R 30 and urinary output 2 ml/minute at the conclusion of operation. Postoperatively the patient did very well.

Case 2. A 64 year old Negro woman one week postoperative to subtotal gastrectomy for a bleeding peptic ulcer was brought to surgery for esophagoscopy and bronchoscopy to search for the source of continued bleeding. Upon arrival in surgery the patient was agitated and was unable to cooperate. Constant regurgitation of blood led to filling of the patient's mouth and nose with a froth of bright red blood. The BP was 140/100, P 100 and R 30. Diazepam induction was begun using 2 mg increments intravenously while 100% oxygen was administered by mask. As in the previous case, 8 mg diazepam given over approximately 5 minutes produced marked sedation. Vital signs were unchanged. Oral intubation without topical anesthesia of the larynx was readily accomplished. The endoscopy lasted 40 minutes. Fluroxene 4% in oxygen was employed to achieve quiescence. No change in vital signs was noted. Postoperatively the patient continued to bleed. When she died subsequently, it was found that the gastric suture line had given way.

*From the Department of Anesthesiology, University of Tennessee College of Medicine and the City of Memphis Hospital, Memphis, Tenn.

Case 3. A 74 year old Negro with a long history of chronic obstructive pulmonary disease was 7 days postoperative to a transurethral resection of the prostate. The patient was on ampicillin and intermittent positive pressure breathing with isoproterenol (Isuprel) and was producing minimal amounts of mucopurulent sputum. The respiratory rate was 38 with prolongation of expiration. Chest film showed emphysematous changes bilaterally. The EKG indicated right ventricular hypertrophy. The patient was brought to surgery for cystolithorhexis. He was premedicated with diazepam 10 mg, hydroxazine 25 mg, intramuscularly one hour before operation. Induction was begun by administering 2.5 mg increments of diazepam intravenously. Ten mg, given over 5 minutes produced unconsciousness. Anesthesia was continued with fluroxene, nitrous oxide 4 L/minute, oxygen 2 L/minute under mask. At the beginning of cystoscopic instrumentation the patient moved, and 10 mg diazepam intravenously given was over the next 10 minutes. The cystolithorhexis lasted 45 minutes. At the end of the operation the patient was markedly depressed. Respirations were rapid but shallow and the patient remained comatose. Eighty mg of doxapram were given and the patient appeared ready for transfer to recovery room. However, the patient remained markedly depressed for 4 hours. There was never any evidence of cardiovascular depression.

Case 4. A 72 year old Negro with grade 2B arteriosclerotic cardiovascular disease developed acute urinary retention. He had a history of angina on modern exertion, two-pillow orthopnea, and 1 to 2+ pitting edema of the extremities. He was being treated with digitalis and diuretics and coronary vasodilators. The EKG showed an old anteroseptal infarct. Chest x-ray showed mild emphysema. Electrolytes were normal and the BUN was 35 mg. The patient was premedicated with 10 mg diazepam, 0.4 mg atropine intramuscularly one hour before operation. Induction was begun by administering 2 mg increments of diazepam intravenously. After 4 mg the patient appeared to be asleep. Anesthesia was continued with fluroxene and nitrous oxide 3:3. Topical anesthesia of the larynx was achieved with 60 mg 2% lidocaine and oral intubation was readily accomplished. Vital signs remained stable throughout the 2 hour and 15 minute procedure. The patient quickly awakened. The postoperative course was uncomplicated.

Discussion

Brown and Dundee⁸ have evaluated diazepam as a possible agent for induction. They suggest that its slower onset of action relative to the thiobarbiturates may make overdosage likely. Their conclusion was that diazepam may be of value as an

amnesic agent especially in poor risk patients.

We have used Valium induction in more than 50 cases. Our experience has verified the much repeated observation regarding diazepam's remarkable lack of cardiovascular depressant effect.⁶ The observed lack of respiratory depressant effect was also noted except in excessive dosage.⁵

We have found that the elimination of agitation so frequently present in the seriously ill patient combined with the potent amnesic effect of diazepam makes atraumatic awake intubation followed by very light levels of inhalation anesthesia readily feasible.

In our hands, incremental diazepam intravenously has proved to be a highly satisfactory technique of anesthetic induction in the poor risk patient. Total dosage required for induction ranged from 4 to 10 mg of diazepam administered over 8 to 10 minutes. This dose is considerably less than that required for cardioversion in less severely ill patients (20 to 30 mg).^{2,4}

Case 3 demonstrated the importance of avoiding relative overdosage. Subsequent depression has been noted in this and similar cases to be quite prolonged.

Summary

Diazepam in slowly administered intravenous increments of 2.0 mg makes it a very effective induction agent in the poor risk patient. Cardiovascular and respiratory function are not compromised. Somnolence and amnesia make atraumatic intubation easily feasible. Relative overdosage will produce prolonged somnolence, and induction dosage is variable, therefore careful titration of each patient with small incremental doses is mandatory.

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* * *

Cumberland Medical Center Uses Packaged Disaster Hospital In Emergency

William H. Armes, Jr., M.D., R. H. Odom, and Robert Couch, Tennessee Department of Public Health, Nashville, Tenn.

Thirty patients suffering from food poisoning brought forth a flurry of activity in the Cumberland Medical Center in Crossville recently.

An urgent telephone call from the officials of the Pikeville State Vocational Training School alerted the Medical Center that 30 of the 40 boys believed to be victims of food poisoning would be arriving in a matter of a couple of hours. A state of emergency was declared by the Chief of Staff and the hospital disaster plan was initiated.

Within 2 hours from the time of the first notification of the emergency, patients began arriving. Triage was performed. All were diagnosed as having food poisoning and medication tables were set up in the emergency room hallway for preparation of injection and intravenous medications. Registered nurses started intravenous fluids and licensed practical nurses gave injections as the physicians ordered each medication charted on the reverse side of the Disaster Tag. Other therapeutic personnel were assigned to take blood pressure, pulse rates and record these on the face of the Disaster Tag, and to report immediately any significant blood pressures to the physician.

Most of the victims were obviously weakened and were vomiting as they left the bus. Some were assisting the ones who were unable to walk. The more seriously ill were placed on stretchers and medications were administered immediately following the doctor's examination and orders.

All 30 were ordered to be hospitalized. The

hospital was at full bed capacity and it became evident that additional beds would be necessary. Cumberland Medical Center has a 200-bed packaged disaster hospital which was made available through the Tennessee Department of Public Health and Public Health Service. Under emergency conditions, hospitals which are affiliated with packaged disaster hospitals have the authority to use any or all portions of the disaster hospital that are needed to provide disaster medical and hospital care. Cumberland Medical Center utilized 30 beds from their disaster hospital to cope with the immediate emergency. The hospital had an adequate supply of sheets, pillows and blankets.

One hour and 20 minutes from the arrival of the first patients, all were admitted and put to bed. The following day they were discharged. Beds from the packaged disaster hospital were returned to general storage as the hospital settled down to normal daily operations.

In addition to meeting the immediate medical needs, the hospital had successfully put into operation its disaster training and planning capabilities. This was a "first" in the utilization of both supplies and trained personnel of the packaged disaster hospital in Tennessee.

According to R. H. Odom, Director, Division of Emergency Health Care, Department of Public Health, the Cumberland Medical Center received a week's "hands on" training with the packaged disaster hospital only six months preceding this emergency. The training proved to be of value to the hospital in meeting their emergency responsibilities. Mr. Robert Couch, Administrator, stated: "I'm sure glad we had the packaged disaster hospital available. I don't know what we would have done without it."

Tennessee has 66 packaged disaster hospitals that provide emergency medical and hospital resources to communities through their community hospitals.

Eye involvement is often a decisive factor in recognizing the type, origin and extent of a systemic disease. Lack of awareness of specific entities leads to a delay in the correct diagnosis and may contribute to the unfavorable course of a particular illness. This paper will attempt to correlate inconspicuous and uncharacteristic ocular signs which initially were not evaluated correctly with the issuing serious disease.

Atypical Ocular Signs as the Initial Manifestation of Serious Systemic Diseases*

ALICE R. DEUTSCH, M.D.,† Memphis, Tenn.

Introduction

Diseases and transitory disorders of various organs may be accompanied or followed by rare and atypical abnormalities of the eye and its adnexa. In certain instances the eye is the only organ primarily affected. The recognition and identification of such specific eye lesions, especially challenging, if they are not quite characteristic, may lead to an earlier diagnosis of the systemic disease and enhance a speedy and therefore more successful treatment.

This paper is based on the history of 3 patients with inconspicuous and apparently not distinctive abnormal ocular signs and symptoms.

It is our purpose to evaluate the effect of the belated precise diagnosis on the final outcome of the individual case.

Case Histories

Case 1. A 16 year old white girl was seen at the office for the first time in September, 1967. Her only ocular complaint was a nodule on the right globe which she had observed a few days before upon looking into the mirror. She had no pain and vision was not disturbed. The patient's general health had been good, though during the previous month she has had increasing discomfort in the joints, especially of both knees. This prevented her from playing basketball, her favorite sport.

On examination a small, hard, reddish nodule was visible under the conjunctiva in the temporal quadrant of the left eye. It began at 1.5 mm. from the limbus and extended to 3.5 mm. in its largest meridian. There was only a mild conjunctival congestion. No other abnormalities

were visible in the anterior or posterior segments of either eye. Vision was 20/20 with correction.

In spite of the fact that the lesion described did not resemble an episcleritis, and in spite of the fact that the joint disease was not diagnosed as rheumatoid arthritis, episcleritis was the tentative diagnosis at this time. The family physician was advised accordingly. No steroids for use were prescribed so this atypical lesion could be observed without interference. The patient did not keep her appointment and returned only 3 weeks later. At this time she had subconjunctival infiltrations in both superior fornices spreading in form of a bow towards the inferior fornix. The original lesion was unchanged. No other eye anomalies were present. The motility of both globes was normal. Small superficial ulcers were visible in the mucous membrane of the cheek, and hemorrhages were seen in the mucous membrane of the hard and soft palate. The cervical nodes were not enlarged. All the findings were very suggestive of acute leukemia. The family physician was notified immediately. The second delayed diagnosis unfortunately proved to be correct. A smear from the bone-marrow showed lymphoblasts with immature nuclei, many indented, with a reticulated delicate chromatin structure, multiple nuclei and only a narrow rim of agranular, pale blue cytoplasm. Those findings affirmed the diagnosis, acute lymphatic leukemia, and predicted a very unfavorable outcome. The patient died about 6 weeks later. There was no autopsy.

Comment. Orbital and subconjunctival infiltrations on the globe and lids occur not infrequently in acute and chronic lymphocytic leukemia. They are described as hard, red, fleshy nodules, and are round or oval on the globe and oblong or horizontal in the fornices. The absence of gross conjunctival vascularization is typical. They are described as being monocular or binocular. They may be the primary lesions or be associated with the constitutional disease. The subconjunctival nodule seen

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in this patient, as the primary sign, had all these essential characteristics. It is, however, doubtful if an initial correct diagnosis would have prevented the devastating course of this disease.

Case 2. A 47 year old Negro woman was seen for the first time in June, 1959, because of a main complaint of severe headaches. She had a bilateral pronounced protrusion with some retraction of the upper lids. The exophthalmometer reading was 19/19 with a baseline of 102. The lids closed well and there was no impairment of motility. The pupils were equal and reacted promptly. Bilateral severe myopic changes of the fundus included displacement of the vessels to the nasal side, a deep, nearly marginal cupping of a pale appearing disc, peripapillary choroidal atrophy, a pronounced stretching of the posterior pole and thinning of the periphery. The intraocular tension was 15/15 on applanation. Peripheral fields showed a 15 to 20 degree concentric constriction of both fields. The blind spots were found to be considerably increased (15 degrees above and 20 below, 10 degrees in the horizontal meridian). Ophthalmodynamometry equalled—systolic pressure/diastolic pressure—100/50 in the right eye and 100/52 in the left eye. Refraction equalled: OD= $-12 -2.50 \times 180 = 20/50$, OS= $-5.50 -2.00 \times 5 = 20/30$. The severe headaches could not be explained by the ocular findings. Unfortunately, no special attention was paid to the identical exophthalmometer reading in the presence of an anisometropia of 6.50 D. The concentric constriction of the fields and the increased blind spots were referred to the myopic fundus changes. She was advised to have a neurologic examination.

The patient was not seen again until December, 1964. She complained of unbearable headaches and pain around the left eye. Nevertheless, she never had the neurologic consultation advised five years previously. Now her appearance had changed; the left lower and upper lids were moderately swollen. The exophthalmometer reading was 19/20 with a baseline of 102. The right disc was unchanged, but the left disc margins were definitely veiled. Intraocular tension was OD/OS — 18/16 (applanation). Ophthalmodynamometry equalled—systolic pressure/diastolic pressure—90/48 for both eyes. There was no disturbance of motility and no sensitivity disturbance in the region of branches of nerves V/I. The peripheral fields of the left eye were more concentrically constricted than those of the right, the much more nearsighted eye. The swelling of the lids, the protrusion, the pain around the eye, the disc changes and the constriction of the peripheral fields were highly suggestive of a meningioma of the sphenoidal ridge pointing especially to its medial third. There apparently was no disturbance of smell. No thickening of the temporal fossa could be found on palpation. Since meningiomas are ex-

tremely rare in the Negro race, fibrous dysplasia also was considered.

The patient was admitted at once to the Neurologic Service. X-ray examination disclosed increased density of the bony structures of the skull with irregular margins, involving the tuberculum sellae, the left sphenoidal ridge, olfactory groove and narrowing of the left optic canal. Bilateral carotid angiography revealed a large tumor mass in the left sphenoid area. These findings were indicative of a meningioma, possibly starting from the sphenoid ridge. Immediate operation was suggested. The surgical prognosis for this type of tumor is comparatively favorable if it is diagnosed early and the growth is still localized. However, at operation it was found that the tumor tissue not only covered and infiltrated the base of the skull back to the pons, but also had perforated the skull toward the temporal fossa; another part of the tumor formed a large, global mass toward the sylvian fissure. A subtotal resection was done to relieve the patient's headaches, but at least temporary reducing the pressure on the brain. The postsurgical period was stormy. The patient died 16 days after operation. Autopsy was denied.

The pathologic diagnosis of the tumor was invasive meningioma. The specimen demonstrates the type as a meningothelial meningioma composed of small islands of epithelial-like cells, occasionally arranged in whorls; in some places the tumor is composed of intermingled bundles of fibroblasts. The nuclei are uniform. The intervening stroma shows localized dense vascularization. Some of the fibrous components are hyalinized. There were no psammoma bodies in the sections reviewed. Therefore, the connective tissue layer of the arachnoid could have contributed to the potential origin of the tumor.

Comment. Meningiomas are of fibroblastic and mesothelial origin. They occur in two forms: there is a global type which grows into and compresses nervous tissue and a carpetlike or "en plaque" type which spreads across the surface of the meningeal linings. Initially they do not invade, but only compress nerve tissue so if they are removed during their early stage, the normal neural function of the surrounding area may be regained. They have the unusual property of spreading through bone causing pronounced hyperostosis besides creeping along the surface. They also have the ability to insinuate themselves into the crevices of the brain and the foramina of the cranial cavity. They are most frequently seen in women 50 to 60 years of age. The exact origin of the tumor is difficult to localize after it has attained a certain growth. The meningiomas which occur at

the base of the brain, particularly in the region of the sphenoidal ridge and tuberculum sellae initially, may present only eye signs which, if recognized and promptly and appropriately treated, may well permit survival and even good recovery of the patient, since the tumor is mostly histologically benign. Unilateral proptosis, unilateral visual and field disturbances, edema of the disc or atrophy of the optic nerve are among the characteristic signs and symptoms of a meningioma of the medial third of the sphenoid ridge. There is no doubt in my mind that a considerable proptosis of the left globe was already present in 1959, but not recognized because of the difference in the size of the globes. The same was true for the visual loss and the impairment of central vision which again were erroneously referred to the myopia. An early diagnosis and proper treatment might have saved this patient's life.

Case 3. A 50 year old negro school teacher was seen for the first time in April, 1964. She came for refraction and for a glaucoma survey because her father and two sisters had glaucoma. Her father had bilateral absolute glaucoma; the sisters had chronic open angle glaucoma, controlled by medication.

On examination both discs were found to be pale, sharply outlined, with a flat cupping reaching the margin from above. Schiötz readings varied from 15.6 — 17 (7.5 wt.) and from 15 —

18 (applanation). Tonogram: PO = 16, C = 0.18, PO = 18, C = 0.12. Water provocation test was negative. Gonioscopy showed an open pigmented angle. Ophthalmodynamometry reading equaled —systolic pressure/diastolic pressure— OD = 100/48, OS = 95/48. The possibility of a low tension glaucoma was considered, especially because of large defects in the central visual fields. The defects, however, especially in the left eye could not be referred to a double nerve fiber scotoma or the paracentral scotomas, characteristic for glaucomatous field loss. The scotomas connected with the blind spot ended sharply in the midline (Fig. 1). Nevertheless, she was put on 1% pilocarpine which did not influence the intraocular tension. When the fields were repeated in December, 1965, the central one was unchanged. The peripheral field distinctly showed a defect in the temporal superior quadrant, with a sharp break in the vertical meridian, very suggestive of a compression of the chiasma from below (Fig. 2). X-ray findings demonstrated a ballooning of the sella turcica and a tilting of the dorsum sellae and confirmed this tentative diagnosis.

Neurologic examination was completely negative, except for the field and optic disc changes described. The neurosurgeon advised only irradiation at this date. He also suggested the patient be under close neurologic observation and to repeat the visual field studies every 2 months. Explorative surgery was advised only in the presence of progressive field changes or other neurologic manifestations. 4500 rad of Cobalt 60-beam were given during the next 4½ weeks. Fortunately, the patient did very well. The right field improved considerably; the left field also showed slight improvement. At

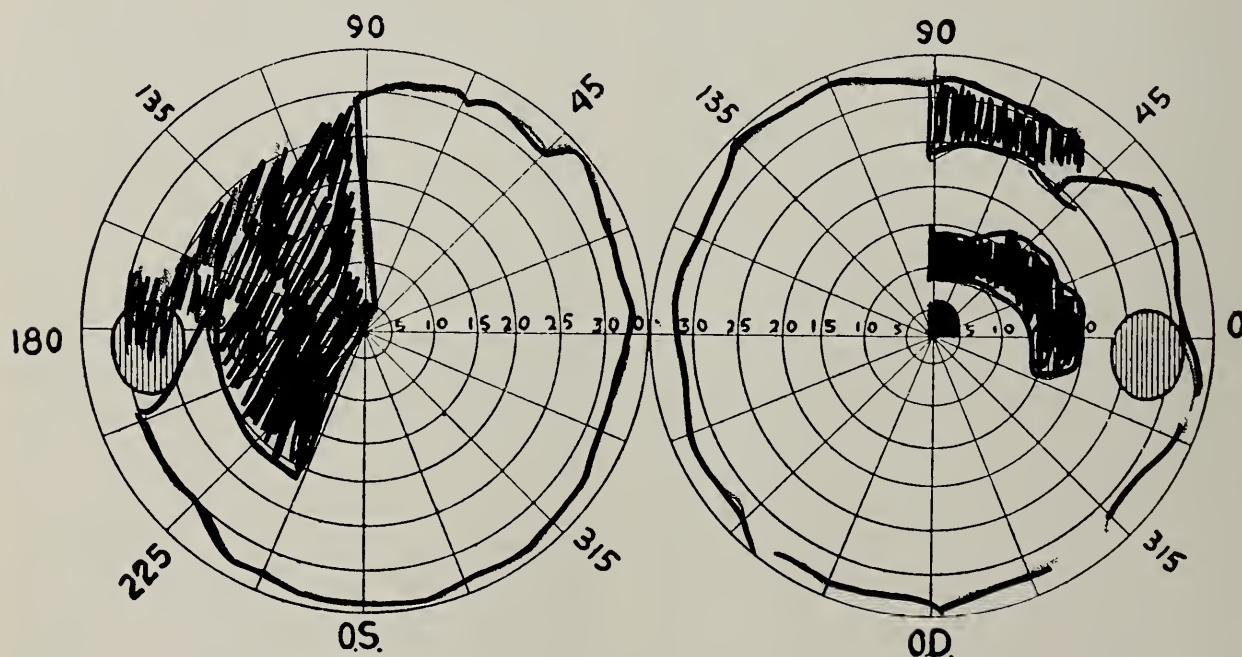


Figure 1

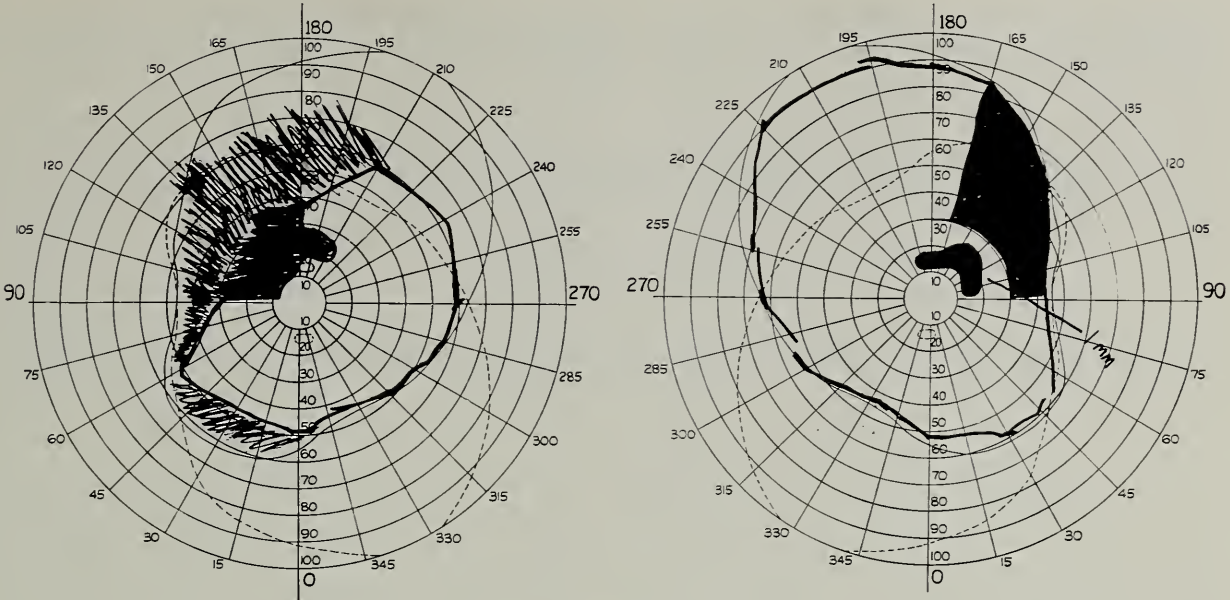


Figure 2

present the disc is unchanged and so is the intraocular tension without medication. There are no other signs and symptoms of a progressive intracranial lesion. At her last examination in January, 1970, visual acuity with correction was 20/30 (OD) and 20/40 (OS). Central and peripheral fields have been unchanged for 3 years (Fig. 3).

Comment. It was fortunate, indeed, that the midline step in the peripheral fields was so pronounced that the cause for the loss

of vision and optic atrophy could be established correctly and that they were not referred to a questionable low tension glaucoma, a very tempting diagnosis in the presence of a positive family history.

Summary

The 3 case histories presented illustrate the occasional difficulties and problems in making the correct diagnosis in an ap-

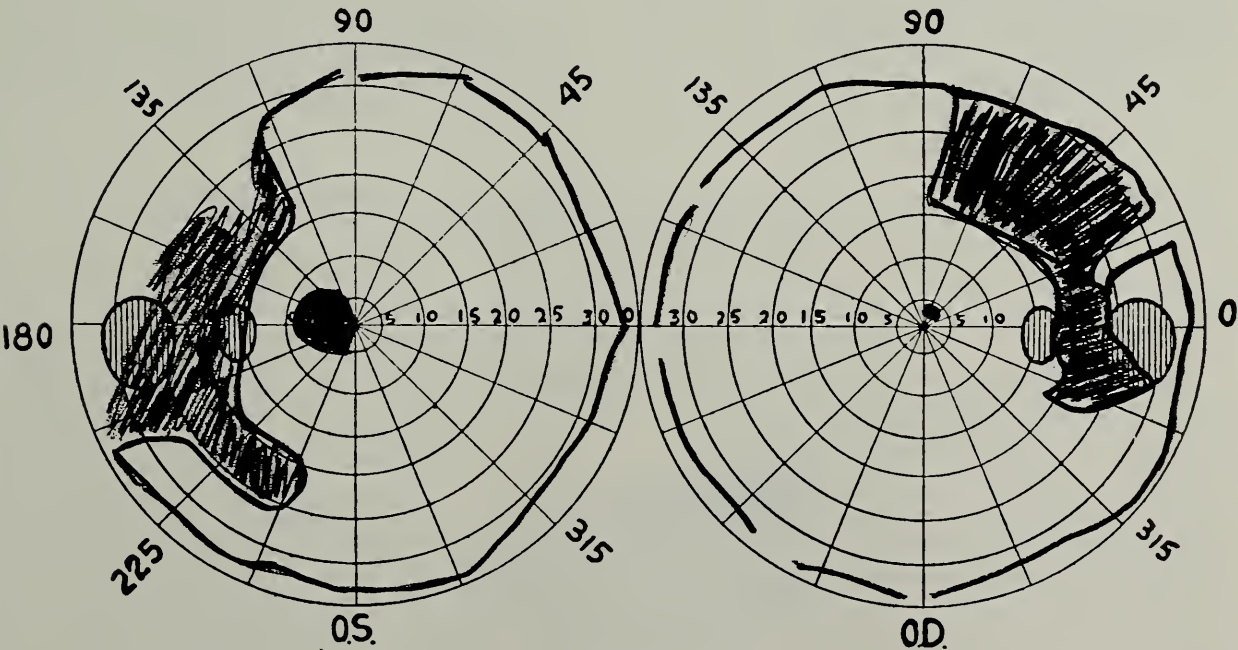


Figure 3

parently primary eye disease. They also emphasize the significance of an early recognition of the type, origin, and extent of the basic disease and emphasize correlation with primary, isolated ocular manifestations. They, furthermore, deal with the factors which might be the cause for confusion and incorrect interpretation. The young girl (Case 1) whose subconjunctival lesion, though typical for lymphomas and leukemias was not recognized, probably would not have been helped by a correct diagnosis 3 weeks before the signs and symptoms of acute lymphocytic leukemia became manifest. In Case 2, a 54 year old Negro woman, whose monocular proptosis was veiled by an unequal, highly myopic globe undoubtedly could have been improved if the correct diagnosis had been made before the spread of a meningioma,

arising either from the sphenoid ridge or tuberculum sellae prevented a successful excision. In Case 3, the 56 year old school teacher initially was diagnosed as having low tension glaucoma, because of the family history, pale disc, and field defects. The repeated investigations of the visual field lead the examiners to the correct interpretation of the field defects and made them aware of the actual cause. Adequate treatment apparently controlled further deterioration of both neurologic and ophthalmologic signs and symptoms.

The specific differential diagnosis with particular emphasis on the initial errors in interpretation of the individual cases is reviewed and discussed.

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* * *

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The use of isotopes for the localization of the placenta has become a valuable tool in planning for the delivery of the infant in instances of abnormal placental implantation. Diagnostic accuracy is high.

Placental Localization With Radioactive Iodine—131:

Review of Isotopic and Radiologic Methods of Localization

J. WHITTEN, M.D., and A. W. DIDDLE, M.D.,* Knoxville, Tenn.

Johnson,¹ in 1945, and Williams,² in 1948, first documented the value of conservative management of placenta previa. They recommended that delivery be delayed, if possible, until the infant was considered to be viable. Supportive treatment of patients afflicted with previa consisted of bed rest and adequate replacement of blood. The diagnosis of placenta previa in those days was determined by cautious vaginal examination. But vaginal examination under this circumstance may cause dangerous hemorrhage or premature delivery. The extent of a previa, if present, may be important in the decision to allow a pregnancy to continue or whether a woman with a previa remains an outpatient. In recent

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years various radiologic and isotopic methods have been used to locate the placental site antepartum with varying degrees of success. (Table 1) This communication documents our experience with I131 to localize the placenta. Concomitantly various recorded methods regarding placental localizations by isotopic or radiologic techniques are compared.

Materials and Methods

Since 1964, we have given 5 microcuries of I131 intravenously into the antecubital vein to locate the placental site. A scintillation counter is held perpendicular to the contour of each of 9 sectors of the patient's abdomen and over the precordium. Counts are begun 2 to 3 minutes after the injection with the patient in a supine position. The entire counting time approximates 30

Table 1

SUMMARY* OF RESULTS OF PLACENTAL LOCALIZATION

Method	Patients With Previa			Total Patients Studied		
	Total	Number	With Correct	Total	Number With Correct	
	Studied		Diagnosis		Diagnosis	
			NUMBER PER CENT		NUMBER PER CENT	
Radioisotopes:	301	271	(90%)	1,076	1,046	(97%)
Iodide (I-131 and I-132)						
Chromium (Cr ⁵¹) (65)	5	5	(100%)	20	20	(100%)
Technetium (Tc ⁹⁹)	21	19	(90%)	94	90	(96%)
Sodium (Na ²⁴)	Not Given			44	41	(93%)
Pelvic arteriography	90	89	(99%)	473	467	(99%)
Soft tissue placentography	552	463	(84%)	2,940	2,852	(97%)
113m I gelatin complex	6	6	(100%)	50	50	(100%)

*More detailed evaluation of results obtained by 65 different investigators and bibliographic data may be obtained from the authors.

minutes. The count in each sector is expressed as the percentage of the precordial count. Up to November, 1969, 86 out of 5,542 consecutive obstetric patients had painless uterine bleeding and had a tentative diagnosis of placenta previa. Sixty-three of the 86 patients were in the last month of pregnancy, 17 others in the eighth month and the remaining 6 in the seventh month of gestation. Anatomic confirmation of the location of the placenta was obtained in 18 of these women at the time of cesarean section, intracervical palpation, or manual removal of the placenta. The site of the placental attachment, in the remaining 68 women, was determined by intrauterine palpation at the time of vaginal delivery or by locating the point of rupture in the delivered placenta.

Results

Sixty-two women did not have placenta previa. Fifteen had either partial or total previa, and another 5 had scans interpreted as low implantation or marginal previa. All of the diagnoses were correct.

On the contrary, the interpretation for placental location was incorrect for 4 women. Three of these were incorrectly read as no previa, while the fourth was incorrectly recorded as previa.

The overall diagnostic accuracy of the scanning technic was 95%. The accuracy in cases of previa alone was 13 of 18 or 83%. Weight of the patient did not measurably affect the interpretations. The misinterpretations were associated with transverse lie (one case) or generalized diffuse distribution of isotopic material throughout the uterus (3 cases).

Comment

We have found placental localization most useful in patients afflicted with painless uterus bleeding before term. Clarification aids in planning outpatient care and selecting the appropriate method of delivery. Since an occasional interpretation of the placental site has proved to be incorrect we continue to confirm the diagnosis of previa by vaginal examination in the operating room at the time section is anticipated or labor begins. Initially our explanation for the error in diagnosis in

these 4 patients was equal diffusion of blood in the entire anterior position of the uterus. At the time we believed this precluded an accurate diagnosis. Now we believe this situation should confirm the suspicion rather than detract from the diagnosis of previa. Under this circumstance a lateral scan may be done to crystallize an opinion.

Five microcuries of radioactive I131 is the most widely used of the isotopes. Weinberg,³ in 1957, was the first to gain widespread acceptance of the use of the radioisotope I131. It is a satisfactory isotope, with a half-life of 8.08 days. I132 has been used, also, but requires more millicuries of isotope than of I131.

Hibbard⁴ evaluated the use of I131 to localize the placenta in 672 patients. Predictions of localizations were broken down into 4 groups. Group 0, previa was definitely ruled out. Group 1 included minor degrees of previa. In Group 2, a more major degree of previa was present, while group 3 included only central placenta previa. There were 3 errors in diagnosis in this study. These errors were attributed to the presence of either a placenta membranacea, placenta bilobulate, or an abdominal pregnancy. His diagnostic accuracy exceeded 90%. Other authors report difficulty in diagnosing placenta previa by this method if the implantation is in the posterior segment of the uterus. To circumvent this problem some have utilized lateral and posterior scintillating counting with varying degrees of success.

Accurate placental localization has been accomplished through pelvic angiography, or aortography. Brink⁵ was of the opinion the placenta was low lying if the radioopaque material appeared in the region of the uterus and below the anterior-superior iliac spine or the first sacral vertebra. If it reached the level of the ischial spine, it was considered to have reached the internal os of the cervix and was therefore diagnosed as being a placenta previa. Abruptio was diagnosed correctly in 6 of the 18 patients so afflicted.⁶ The contrast medium pooled retroplacentally 15 seconds after injection of the media.

Still angiography may present technical

problems. Obesity of the patients may give the false impression of the lower border of a placenta located anteriorly as projecting into the pelvis. Rapid diffusion of the opaque material allows only one view of the pelvis to be filmed. Yet both anterior-posterior and lateral views may be essential for correct placental localization.

In the past, soft tissue x-ray studies were used frequently to locate the placenta. Prematurity, polyhydramnios, multiple gestation, poor film technique, a full bladder or rectum, lack of abdominal musculature, pelvic tumors, and breech or transverse presentation often lead to inaccurate interpretations. According to Borell and associates,⁷ the technic was more reliable if air was injected into the rectum of the patient examined. A posterior previa could be ruled out if the distance from the head to the rectum was less than 2 cm. Other authors filled the bladder with a contrast medium. Similarly an anterior previa was excluded if the distance from the fetal head to the symphysis pubis was 2 cm. or less. Obviously these statements cannot apply if the presentation is other than a vertex or if a pelvic tumor displaces the presenting part. Lack of descent of the infant into the pelvis may make the diagnosis difficult or impossible. Multiple roentgenographic exposures are frequently needed from various angles to make a satisfactory diagnosis. For this reason the method has been replaced by other procedures that minimize fetal radiation.

Browne and Veall⁸ first used sodium-24 chloride to locate the placenta. But their method was unsatisfactory. The isotopic material diffused too rapidly and had too short of a half-life. For this reason it never gained wide acceptance.

We have used technetium-99m in a few obstetric patients suspected of having placenta previa. The accuracy, in our hands, is less than with I131. The isotope technetium has a half-life of approximately 6 hours. It decays by gamma emission. The permissible dosage is 1000 microcuries. This method is more expensive to carry out than some of the other methods and generally unavailable in most laboratories.

Two other methods for placental localiza-

tion have been described recently. In one instance a short lived radioisotope I13m in a gelatin complex is used. The substance becomes bound to transferrin in the blood and has a half-life of 3 hours. The other concerns the isotope chromium-51. It has the advantage of lacking beta emission and is not concentrated in the fetal thyroid.⁹

The recorded experience with various radiographic or isotopic procedures is summarized in table 1.

Summary

A total of 86 consecutive placental localizations with radioactive iodinated serum albumin (I131) are reviewed, and a review of the literature is presented of other common methods of localization. The overall accuracy was 95%. By hindsight we believe misinterpretation led to an equivocal or unsatisfactory opinion in the remaining 5%. Because an occasional placental site was located incorrectly, we continue to confirm the diagnosis by intra-cervical palpation in most patients with suspected placenta previa in the operating room at the time labor begins or section is anticipated. Yet we believe as one gains experience with the technic the need for the endocervical palpation to make a correct diagnosis of previa should not be necessary in the majority of patients.

From the standpoint of cost, minimal quantity of radiation to the unborn fetus and ease of application without complications, the use of 5 millicuries of I131 to locate the placenta appears to be preferable to several other isotopic or radiologic procedures described in the literature.

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CASE REPORT

Nasopharyngeal Carcinoma in Caucasian Siblings: Report of Two Cases*

Richard B. Bell, M.D., and

Thomas A. Maguda, M.D.

Memphis, Tenn.

The average incidence of nasopharyngeal carcinoma in the larger cancer clinics has been reported to be between 0.7 and 2.5%, making it a relatively unusual but not rare tumor. Reports of geographic and social predominance of this tumor are noted in Africa (Kenya and Uganda)^{1,2} and by the Chinese (Hong Kong).³ The Chinese seem to carry with them their predilection for nasopharyngeal carcinoma, as the incidence is higher in those who have migrated in numbers to other areas (California, Hawaii, and Australia).⁴

This disease occurs less frequently in Caucasians and is estimated to strike 6 persons per million in the United Kingdom, but these 6 might not necessarily be Caucasian. A similar incidence of seven per million was recorded in New York State in 1950. The male-female ratio of 2:1 or 3:1 is consistent in most populations.

The disease is reported to occur in families, especially among Chinese, and Jung⁵ reported a case of three siblings affected with this disease.⁵ Scott and Atkinson⁴ reported occurrence in 6 families in 1569 cases, all of Chinese descent. The occurrence in Negro siblings has also been noted by Jaffee⁶ in the United States (Washington, D.C.). McConnell⁷ reported a case involving 2 brothers, but race was not mentioned. In 1940, Stinson⁸ and White-leather⁹ reported a case in Caucasian brothers, both teen-agers, who were born and reared on a farm 180 miles from the homes of the principals in this report.

The following case reports concern a brother and sister who were born and lived their lives in Northwestern Mississippi. They were of Scottish and Irish descent, were products of a nonconsanguineous

union, and were the first and seventh children of a family of 8. They were born and lived to young adulthood in a frame farm house with high ceilings. There is no history of exposure to chemicals or industrial toxicants. The female was a housewife and the male was a salesman. The woman did not use tobacco nor drink alcohol. The male smoked one and a half packs of cigarettes daily from age 18 years and rarely drank alcohol. He had been an aviator in World War II, but had not been given nasopharyngeal irradiation as some flyers had because of recurrent aerotitis media.

Photomicrographs of the original biopsy specimen in each case are shown to illustrate tumor cells.

The sole purpose of this report is to illustrate the sibling occurrence of nasopharyngeal carcinoma, an unusual tumor in a race that is stricken less frequently than others. Geographic contiguity with another reported case of sibling nasopharyngeal carcinoma is noted, but it is not assumed that the discovery of the geographically close cases could be any more than chance occurrence.

Case Reports

Case 1. A 45-year-old woman, was first seen by an otolaryngologist in December, 1957 because of recurrent bouts of serous otitis media which had required several myringotomies by her family doctor during the preceding 4½ months.

A thorough examination revealed a 2.5 cm. mass which obscured Rosenmüller's fossa on the left and extended onto the posterior pharyngeal wall. Absence of palpable cervical nodes was noted at the time of the initial examination. Biopsy of the nasopharyngeal mass revealed undifferentiated squamous cell carcinoma (Fig. 1).

She was started on cobalt-60 irradiation and

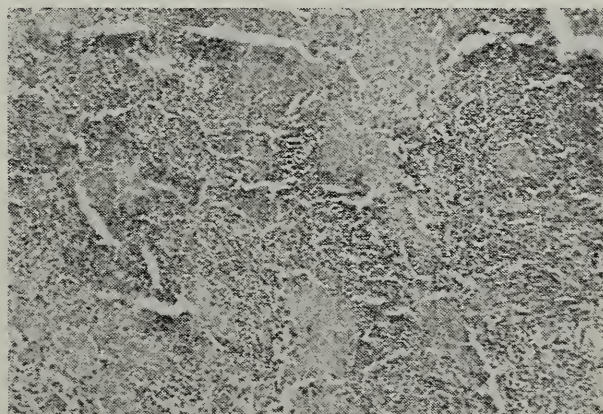


Fig. 1. Original biopsy specimen showing nests of infiltrating squamous cell carcinoma.

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received a tumor dose of 5684 R between Jan. 7, and Feb. 8, 1958. Following irradiation, routine checks revealed nasopharyngeal crusting but no visible tumor.

In May, 1959 she developed left otitis media and a polyethylene tube was inserted. No visible tumor was seen and skull film revealed no bony erosion. In July, a small lump was seen on the superior nasopharyngeal wall and biopsy revealed undifferentiated squamous cell carcinoma. In September, 1959, she complained of weight loss and developed pain behind the left eye. In January, 1960 the left eye pain had increased and skull films showed destruction at the base of the skull in the area of the foramen ovale and foramen spinosum with destruction extending into the petrous ridges. Polypoid changes were noted in both maxillary antrums. By March, the tumor had increased in size and filled the nasopharynx. Polyethylene tubes were placed bilaterally. In May, when seen for the last time, she complained of burning paresthesia in the left cheek. She died in late May, 1960 at her home. An autopsy was not obtained.

Case 2. A 46-year old man, brother of the first patient, was seen in the Department of Otolaryngology of the Veterans Administration Hospital, Memphis, in February, 1969, complaining of "knots" in the right side of the neck which had appeared a month previously and had increased rapidly in size. He had had a 20 pound loss of weight. Biopsy of the neck nodes at another hospital revealed metastatic carcinoma and he was referred to this hospital because a primary site could not be located. In addition, he complained of progressive hearing loss for about a year with bilateral tinnitus, but he had placed little importance on these symptoms. He had recently developed mild pain in the left ear.

Examination revealed bilateral serous otitis media and a 2 by 3 cm, rather flat, mucous covered, ulcerated midline mass in the nasopharynx. There were several large tender nodes in the right upper neck and over one of these areas a healing biopsy incision. There were several matted, tender nodes in the left upper and mid-neck. An audiogram revealed a bilateral 40 db air bone gap. Skull and chest films showed no evidence of bony erosion or pulmonary metastases.

A biopsy of the nasopharyngeal mass was reported as transitional carcinoma (Fig. 2). The patient was informed of the diagnosis but refused myringotomy for relief of the ear symptoms because his sister had had recurrent difficulties earlier with "tubes in her ears." He received 5037 R to both cervical areas and the nasopharynx in February and March, 1969. There was reduction in the size of the cervical nodes but mucosal reaction in the nasopharynx was severe and painful. Towards the end of irradiation, the hearing improved somewhat and Valsalva's maneuver was effective on the left, but the serous otitis media persisted.



Fig. 2. Original biopsy specimen. Infiltrating transitional cell carcinoma.

He was discharged from the hospital in April, 1969 and when seen in early May the nasopharyngeal lesion was flattened, mucous covered, and reduced in size. Palpable cervical nodes were felt bilaterally. Hearing was subjectively improved but a large air-bone gap was noted bilaterally. He continued to complain of neck pain but had minimal ear discomfort. He returned home and in late May, 1969 developed ascites. While being treated for this condition in his local hospital, he contracted pneumonia and expired. An autopsy was not obtained.

Summary

Two cases of nasopharyngeal carcinoma occurring in Caucasian siblings are presented. Familial occurrence of this disease in Caucasians has not been frequently reported.

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CASE REPORT

Osteosclerosis in Multiple Myeloma

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The bone lesions in multiple myeloma are typically osteolytic. Roentgenograms are described as showing lytic areas with or without osteoporosis in 78% of patients, no abnormality in 12% and osteoporosis alone in the others.¹ As late as 1958, Williams² declared that "one may state dogmatically that if there is any sclerotic reaction at the margin of an osteolytic focus, this is not due to a plasmacytoma or myeloma. The only new bone formation I have seen in myeloma either follows irradiation or is due to callus formation with a pathological fracture."

Generalized osteosclerosis without discrete lytic lesions does occur in multiple myeloma and the following 2 cases are reported to call attention to this manifestation.

Case Reports

Case 1. A 41 year old white man had been in excellent health except for scarlet fever in 1945 and histoplasmosis in 1962.

He first noticed the onset of pain, swelling and small purpuric lesions on both legs in March, 1967. There was associated stiffness and pain behind the knees and some aching of the right wrist. During the ensuing several months there were periodic exacerbations of edema and development of purpuric lesions. Proteinuria was found on urinalysis.

He was hospitalized at Memorial Hospital, Chattanooga, between April 20 and April 26, 1967, with multiple ecchymoses of both legs associated with swelling and redness. There was also slight tenderness of the right wrist. Laboratory studies included a normal CBC, with the exception of 5% eosinophils. ESR was 19 mm. Urinalysis showed a sp. gr. of 1.024, proteinuria 2+ and unremarkable sediment. Uric acid measured 6.5 mg. and cholesterol 242 mg. per 100 ml. Coagulation studies were within normal range. The ASO titer measured 50 Todd units. An RA test and LE prep were negative. Throat culture was negative. Chest x-ray and IV pyelograms were normal. The EKG was within normal limits.

The patient was discharged with a diagnosis of possible erythema multiforme.

During June, 1967, there was onset of laryngeal edema with generalized purpura and swelling. At Memorial Hospital, June 16 to July 6, 1967, examination revealed widespread purpura with edema of the scrotum, fingers and region of the right elbow; laryngeal edema subsided shortly after admission. Laboratory studies included a CBC, which showed a Hgb. of 12 gm, PCV of 35% 10,400 WBC with 52% segs, 40% lymphs, 5% stabs and 3% juvenile cells. Urinalysis reported proteinuria of 4+. Addis count was reported as showing no casts or erythrocytes. Uric acid was 6.2 mg. per 100 ml, and alkaline phosphatase 17.7 KA units. Electrolytes were normal and serum proteins and electrophoretic pattern were within normal range. The ESR was 29 mm. ASO titer 50 Todd units and LE prep was negative. X-rays of the chest, skull and GI series were normal. Bone marrow aspirations from the iliac crests on 2 occasions had a normocellular character. Osteoblasts were noted in both specimens, suggesting bone mobilization; 8% plasma cells were reported on the first aspiration, and 2.5% plasma cells on the second. There was improvement on steroid therapy and a diagnosis of possible Schoenlein-Henoch's purpura was considered.

Following the second hospitalization, the patient was able to return to work briefly but continued to have episodic purpura and edema. There was also a gradual fall in hemoglobin and some increase in proteinuria.

He was hospitalized at Emory University Hospital, Atlanta, Georgia, on Sept. 13, 1968. On admission, BP was 138/70. There were few non-tender, ecchymotic, purpuric lesions, which had an irregular circumference and measured from 3.0 mm. to 2.0 cm. in diameter, over the lower extremities. There was no associated edema. Laboratory studies included a CBC, which showed a PCV of 30.5%, Hgb. of 10.6 gm. WBC 8,200, with a differential count showing 16% myelocytes, 6% bands, 52% segmented forms, 6% eosinophils, 16% lymphocytes and 4% monocytes. One nucleated red blood cell was seen. Platelet count was 253,000, reticulocyte count 2.8%. Coombs test and latex fixation were negative. SMA screening test revealed a uric acid of 6.7 mg. alkaline phosphatase of 24 KA units. Serum protein electrophoresis was within normal limits on 2 occasions. Urinalysis showed 4+ protein. An IVP showed normal kidneys, but the pelvis and vertebrae were now seen to have dense patches of sclerotic bone scattered throughout with an increased density of trabecular pattern. Several bone marrow aspirations were unsuccessful, but open bone biopsy from the iliac crest disclosed abnormal marrow with plasma cells. The urine was also found positive for Bence-Jones protein. Examination for cryoglobulins was negative. A skin biopsy was re-

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ported as allergic vasculitis (anaphylactoid purpura). The patient was discharged on prednisone, fluoxymesterone, (Halotestin) and chlorambucil.

Following this third hospitalization, several complications developed, including pneumonia, herpes zoster of the left chest and episodes of nausea. The patient was hospitalized for the last time on Aug. 5, 1968. Laboratory studies included a CBC, which showed Hgb. of 9 mg. PCV of 28%, 3,800 WBC, with 4% monocytes, 24% lymphocytes, 60% segs, 2% stabs, 2% juveniles and 8% eosinophils. The urine had proteinuria 4+, 5 to 8 WBC/hpf and 0 to 2 RBC/hpf in the sediment. Bence-Jones protein could not be demonstrated on this admission. The BUN was 13 mg., uric acid 4.5 mg. calcium 9.1 mg., and phosphorus 4.1 mg. per 100 ml. Serum protein pattern did not show a myeloma peak. Acid phosphatase measured 1.2 I units, alkaline phosphatase 11.7 KA units. Spinal fluid showed 385 mg. of protein and a sugar of 50 mg. per 100 ml. Bone marrow aspiration was not successful. X-rays of the skull and spine showed a striking change. The posterior clinoids were sclerotic and there was sclerosis with loss of

normal trabecular pattern throughout the spine. (Fig. 1.) The ribs were sclerotic. In the pelvis and upper femurs, there was mixed osteosclerosis and osteoporosis. (Fig. 2.) Sudden paraplegia developed secondary to an intraspinal mass at the level of the 4th and 5th thoracic vertebrae. Tumor tissue removed at laminectomy, August 17, represented poorly differentiated myeloma. A soft tissue tumor developed in the mouth on September 15. On September 30, there was massive hematemeses with rapid deterioration and death occurred October 3, 1968.

At autopsy, the body presented very extensive generalized ecchymotic discoloration of the skin. There were no superficial tumor nodules. The serosal surfaces throughout presented extensive hemorrhages. The most remarkable finding was that of massive nodular and infiltrating tumor involving pleural surfaces, intercostal muscles and a large tumor of the insertion of the left sternocleidomastoideus. There was extensive and generalized lymphadenopathy of the mediastinum and abdominal cavity with para-aortic and retroperitoneal tumor aggregates measuring up to 7.0 cm. in diameter. Ribs and vertebral bodies presented marked sclerosis. The marrow cavity of the lumbar spine was largely replaced with grayish, hemorrhagic tumor. Microscopic examination demonstrated a wide variety of tumor cell types varying from well differentiated plasma cells to poorly differentiated primitive cells with many bizarre giant nuclear configurations. There was no evidence of para-amyloid deposition in tumor or in organs. The kidneys did not contain characteristics cast formations. Glomeruli of increased cellularity presented changes of proliferative and membranous glomerulonephritis.

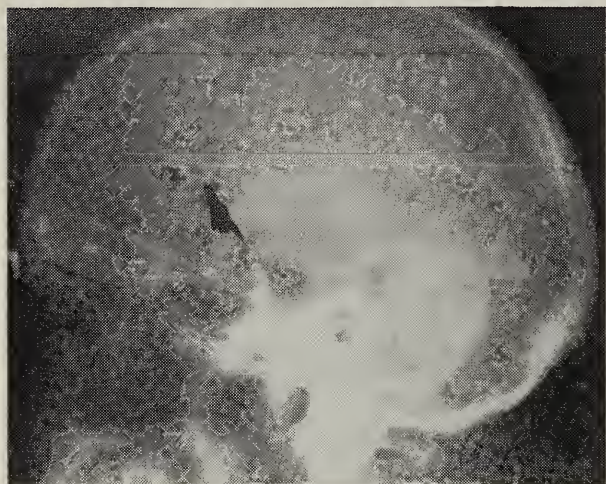


Fig. 1 (Case 1). Note marked sclerosis with pronounced clinoid.

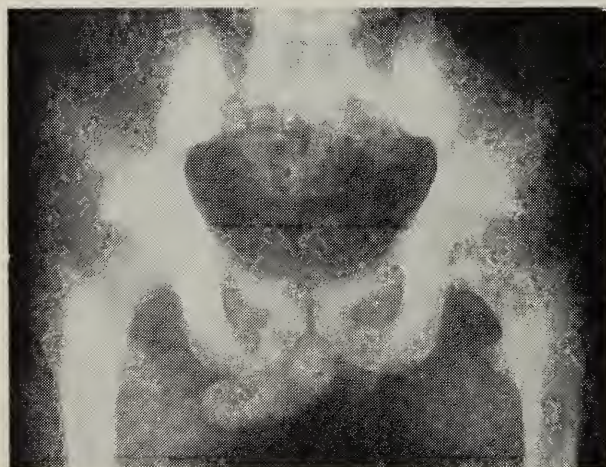


Fig. 2 (Case 1). Marked sclerosis has pattern similar to that seen in metastatic prostate tumor.

Case 2. This 58 year old white woman became ill in February, 1969, when she developed a "flu" syndrome with fever, myalgia, malaise and severe dyspnea on exertion. There had been a gradual 20 pound weight loss despite good appetite. There was no bone pain nor history of blood loss. Discoid lupus had been diagnosed in 1948 and there was history of intramuscular injection of both gold and bismuth.

During April, 1969, the patient was found to be severely anemic with a Hgb. of 5 mg. and a PCV of 18%. Peripheral blood showed 5,750 WBC with 54% polys, 40% lymphs, 1% eosinophils and 5% plasma cells. The urine was negative for Bence-Jones and other proteins. Serum proteins measured 8.7 gm. per 100 ml. with 3.65 gm. albumin. Serum protein electrophoresis demonstrated an homogenous beta globulin peak. Chemical studies showed calcium 10.5 mg. inorganic phosphorus 3.8 mg. glucose 103 mg. BUN 11.5 mg. uric acid 4.6 mg., cholesterol 323 mg., and total bilirubin 0.5 mg. per 100 ml. alkaline phosphatase 45 mU/ml and LDH 322 mU/ml SGOT 48 mU/ml. Bone marrow aspiration from the iliac crest was complicated by an especially

thick and hard bone cortex. Marrow was considered to show multiple myeloma with an abnormal cell population, including 24% plasma cells. There was also erythroid depression. In view of the bone sclerosis, x-rays were made of the lumbar spine and pelvis. No destructive bone lesions were seen but a very striking, diffuse osteosclerosis was found throughout. (Fig. 3.)

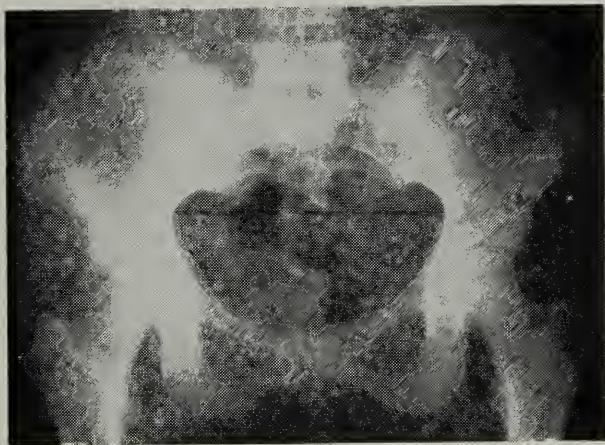


Fig. 3 (Case 2). Diffuse sclerosis with prominent trabecular markings. Heavy metal deposits noted in both gluteal regions.

The skin showed small scattered bruises and thickening of the cutaneous and subcutaneous tissues over the cheeks with a dull yellowish discoloration. There was a grade 1/6 to 2/6 holosystolic murmur, best heard at the apex. The liver and spleen were not palpable and there was no lymphadenopathy.

Discussion

Multiple myeloma in which osteosclerosis is a major or presenting feature is rare. Rypins as quoted by Evison and Evans³ seems to have been the first to describe such lesions in his report of 1933. Only isolated reports have appeared subsequently. Evison and Evans³ reviewed the literature in 1967 and were able to collect 21 recorded cases of bone sclerosis in myelomatosis. They also reviewed the radiographs of 90 proven cases of multiple myeloma in the Bristol Bone Tumor Register for the period 1947 to 1965 and found 3 instances of bone sclerosis. Degnan, Feinberg and Bassett⁴ reported a case of osteosclerosis and plasma cell leukemia in September, 1967. They speculated that the osteosclerosis might reflect some stimulating effect produced by the growth of

plasmacytomas and pointed out that this factor is often seen in myeloproliferative disorders, supporting a unified concept of myeloproliferative diseases in which even the plasma cell, lymphocyte and osteoblast may take part.

Three patterns of primary osteosclerosis in multiple myeloma have been described.⁵ First, there may be focal areas of sclerosis similar in appearance to metastatic carcinoma of the prostate. Second, there may be perpendicular spicules of new bone extending from a myelomatous lesion creating an appearance similar to that of osteogenic sarcoma. A third pattern is that of generalized, fairly uniform sclerosis. Our first case showed diffuse sclerosis and loss of normal trabecular pattern throughout the length of the spine, posterior clinoid and ribs with mixed areas of osteosclerosis and osteoporosis in the pelvis and proximal femurs. The second case showed a diffuse increase of bone density without areas of osteoporosis in the lumbar spine and pelvis. Other bones were not surveyed. The etiology of the purpuric lesions in Case 1 remains speculative. Initially, erythema multiforme was suspected. Henoch-Schoenlein purpura was then considered as the evidence of renal disease became more pronounced. After the diagnosis of multiple myeloma was established, it was thought that secondary amyloidosis explained the skin lesions. We were surprised when the autopsy failed to show any significant amyloid or evidence of vasculitis.

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STAFF CONFERENCE

City of Memphis Hospitals*

Immunological Competence and Infectious Disease

DR. FRANK D. SUTTON: Dr. John M. Nardo will present the case history of an interesting young patient that has been followed on the Medicine Service for the past three years, and who will serve as an illustrative example from which our discussion will stem.

DR. JOHN M. NARDO: This 27 year old white male auto mechanic from rural Mississippi was first admitted to the Medicine Service in December of 1967, with a 2 month history of anorexia, a 20 to 25 pound weight loss and night sweats. For several days before his admission, the patient had been extremely weak and had noticed an ill-defined aching in the left upper quadrant.

Examination revealed a thin, chronically ill-appearing man who was alert and quite cooperative. On admission his T. was 102°; the fever persisted for 48 hours, abated for approximately 36 hours, then returned in a fairly typical "Pel-Ebstein" fashion. The most striking findings consisted of generalized lymphadenopathy and mild hepato-splenomegaly. Laboratory work

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revealed a normal CBC except for a PCV of 37%. Serum electrolytes, glucose and BUN were within normal limits, as was the chest x-ray and EKG. Bone marrow showed only myeloid hyperplasia, but cervical lymph node biopsy demonstrated Reed-Sternberg cells characteristic of Hodgkin's disease.

Clinically, he was classified stage IV and therefore chemotherapy was started—nitrogen mustard initially followed by vinblastine. He responded well to treatment and became afebrile 24 hours after his first dose of intravenous nitrogen mustard, his appetite returned, he gained 15 pounds of weight, and both the lymphadenopathy and splenomegaly regressed.

In the interim years of 1968 and 1969, admissions had usually been for reevaluation or, on one occasion, reoccurrence of splenomegaly which required irradiation. Medications has been changed to procarbazine and prednisone.

On the evening of March 19, 1970, the patient arrived at the City of Memphis Hospitals' Emergency Room with a chief complaint of a painful rash over the left upper extremity. One week before admission he had had the onset of a "stinging" sensation over the lateral aspect of his forearm and hand. This persisted and worsened until fine vesicles appeared in a linear fashion over the lateral palm and dorsum of the left hand, forearm and eventually the left upper arm also. Over a 2 to 3 day period the vesicles became confluent, ruptured and the clear fluid that they initially contained became cloudy. The larger areas formed fine eschars and the entire extremity became swollen. The patient had given this area local care but came to the hospital for this admission when the eruption spread to involve his face, trunk, and to some degree the lower extremities bilaterally.

Admission findings can be summarized by

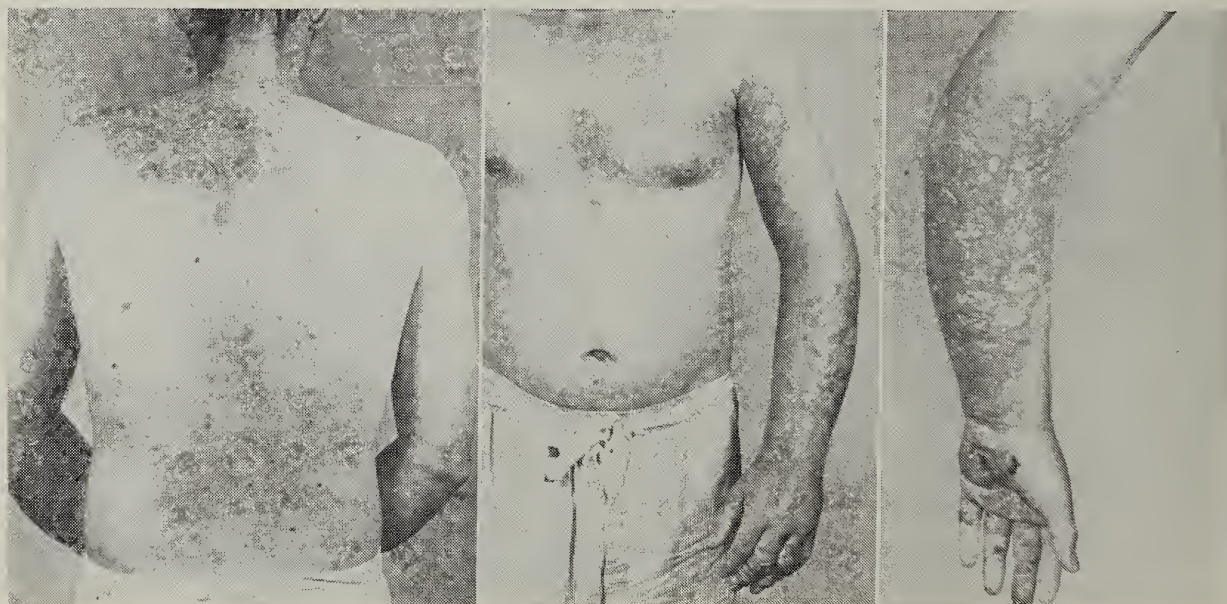


Figure 1

stating that he was a toxic-appearing young man with an oral T. of 103° and a generalized vesiculopustular eruption with areas of coalescence and drainage over the left arm and left chest posteriorly. Early vesicular lesions were present over the trunk, lower face, and other extremities (Fig. 1). The eyes, mucous membranes and lung fields were not involved, and the only evidence of Hodgkin's disease was very mild axillary and inguinal lymphadenopathy and a spleen tip that could be outlined.

Laboratory data revealed normal CBC a total WBC count of 6,100 with a normal differential and no evidence of "transforming" or "stimulated" lymphocytes. Urinalysis and electrolytes were normal, and chest x-ray revealed no pulmonary involvement.

It was the impression on the service that the patient had herpes zoster with dissemination, this being superimposed on Hodgkin's disease.

Treatment was begun by placing him in "reverse isolation," on sterile sheets, following hexachlorophene bath. A healthy young man who had just recovered from herpes zoster donated a unit of blood and the patient was transfused with this donor's plasma and a buffy coat. The response was dramatic with a rapid fall in the temperature and almost complete clearing of the small disseminated lesions of the skin within 24 hours. The zoster now appears to be well confined to the left arm and scapular area, and the patient feels quite well.

DR. GENE H. STOLLERMAN: This case affords an excellent example of the interplay between host and infectious agent in determining first, the type of infection, and secondly, by the host's response, the characteristics of a particular infection. Actually, the problems of infectious disease were our introduction into modern immunology, and it is via this avenue that many of the major advances in immunology have come. The germ has been torn to pieces and studied carefully under the microscope, but the host is less accessible and it has taken a long time for us to make the kind of observations both experimentally and clinically that have enlightened our understanding of the host role, through immunologic competence, in either combating successfully or succumbing to an infectious agent. No longer is the focus alone on the virulence factors of the organism, such as its formidable "toxins," but all physicians must now ask, when faced with an infectious problem, "What deficit in the host allowed this infection to establish itself, and what can

I learn about the host that will help in predicting the outcome of this or that infection?"

One should therefore have a schematic or systemic approach to this problem. I would like to share my way of thinking about the host's defenses with you, and I will ask Dr. Alan Bisno, of our section of infectious diseases, to help in this review.

DR. SUTTON: We have some special studies that were performed on the patient just presented. Would you like those now or later in the discussion?

DR. STOLLERMAN: Let's hold those for the present, but they will be very important to emphasize several points later on.

By way of introduction, let me say that I look at man as an extremely complex multicellular animal who has developed, with exquisite sensitivity, the ability to recognize foreign material of all types, including viruses, bacteria and fungi. Life is a constant battle between man, the host, and parasites of all varieties. There must be a magic password that allows cells which belong to the genetic code of an individual not to tolerate the deviation of a single cell in its population. The specialized host cell that stands and guards the gate against infection has been called the phagocyte or polymorphonuclear leukocyte. This cell, an "eating-machine" or scavenger, must be the first line of defense and one should consider that, phylogenetically, long before there were such highly developed substances as antibodies, there had to be the innate capacity of the surface of this cell to identify and destroy foreign material.

The importance of this one cell, the poly or neutrophil, has certainly been proven in recent years with the identification of certain defects both on the surface and in the poly's inner lysosomal structure that lead to characteristic patterns of recurrent infection. These very specific metabolic defects of the poly have recently been recognized, and are summarized on table 1. These discoveries were made because specialists in infectious disease and immunology insisted on some mechanism for failure of the host defense against common organisms, like the staphylococcus, that

Table 1

MAJOR FEATURES OF SYNDROMES ASSOCIATED WITH NEUTROPHIL DEFECTS¹

<i>Syndrome</i>	<i>Clinical</i>	<i>Functional Defect</i>
1. Fatal granulomatous disease of childhood.	1. Purulent granulomas: Lungs skin, liver, spleen, bone. Boys 7:1.	1. Decreased intracellular killing of staph and others. Metabolic defect glutathione peroxidase.
2. Ford's familial lipochrome pigmentation of histiocytes.	2. Women: Arthritis, pulmonary infiltrates, splenomegaly.	2. Same as #1, but partial.
3. Job's Syndrome.	3. Girls: Pigmentary dilution. Skin and systemic infections.	3. Same but inconsistently demonstrated.
4. Myeloperoxidase deficiency.	4. Diabetes and candidiasis.	4. Absent myeloperoxidase.
5. Chediak-Higashi Syndrome.	5. Bacterial infections, lymphomas.	5. Giant intracellular granules, lysosomal fusion defect.
6. Periodic neutropenia.	6. Furuncles, arthritis, otitis and stomatitis every 21 days.	6. Abnormal marrow kinetics.

1. Adapted from Windhorst, D.B., Functional defects of neutrophils. *Advances in Intern. Med.*, vol. 16, 1970 (in press.).

were destroying the patient. Naturally, antibiotics have enabled us to treat these afflicted individuals successfully and long enough to define wherein the failure of their host defense lay. Thus, we now have opened the exploration of the new field of intracellular metabolic defects in phagocytes as a cause of host defense failure.

DR. SUTTON: We also look on the circulating lymphocyte as a guardian cell against infection, and I would like to know how you fit it into the overall picture.

DR. STOLLERMAN: The lymphocyte is certainly the next very important cell to consider. In fact, one might say that this has been the decade of the lymphocyte, so much information about its structure and function has been gained. The most active phagocyte, the neutrophil, is a *direct* recognition system and thus represents a non-immune clearance system, that is, it can destroy an organism without having had previous experience with it. On the other hand, the lymphocyte belongs to an *accessory* system to the phagocyte. The lymphocyte can stimulate the complex reticuloendothelial system (a) to phagocytize directly, and (b) to manufacture antibodies (opsonins) which greatly enhance phagocytosis and "immune clearance." These special forces can both fight the present invasion and form a reserve unit so that future conflicts with the same enemy

can be more easily warded off. Thus, through the lymphocyte we have an enhanced defense system (immunologic memory) and, in most instances, a lasting immunity, although it may be either partial or complete.

Lymphocytes can be divided into two categories—the circulating group and the tissue-fixed group. The nomenclature is somewhat confusing, but when one speaks of "cellular immunity," he refers to that aspect of immunity governed by the circulating lymphocytes. This is the group or division of lymphs also referred to as "thymus dependent." The separateness of two systems is somewhat artificial in the human but in the avian species, for example, there is considerable evidence that the thymus governs the development of lymphocytes that mediate cellular immunity (delayed hypersensitivity) and that the bursa of Fabricius, a lymphoepithelial organ attached to the intestine, governs the development of lymphocytes concerned with antibody formation. This, then, gives us a functional separation of the immune system. In man, the corollary of the bursa is thought possibly to be the lymphoid structure we call Peyer's patches in the distal ileum, as well as the germinal centers of the spleen, some peripheral lymph nodes, and probably the bone marrow.

The circulating lymphocyte is an amazing

cell that acts as if it were a "whole cell" antibody; that is, each lymphocyte or clone of lymphocytes react with certain antigens only. These cells are greatly attracted to their own antigens, and on contact, undergo the phenomenon known as "transformation"; the lymphocyte multiplies several times, enlarges, and releases a number of substances. One of these, called "transfer factor," carries a message concerning the foreign antigen to other lymphocytes of that group or clone and they, too, become sensitized by the transfer factor to react with the same antigen. This "transfer factor" that passively sensitizes lymphocytes can be extracted and has been identified by Sherwood Lawrence as a polypeptide or polynucleotide of small molecular weight. This substance is capable of specifically sensitizing normal lymphocytes *in vitro* as well as *in vivo*.

These circulating sensitized cells are now capable of identifying specific foreign material, whether such happens to be an infectious agent, a tumor cell or a graft. The sensitized lymphocyte seems to release a cytotoxic substance and also a substance able to attract and agglutinate macrophages presumably to help in ousting any invader.

DR. SUTTON: Now these lymphocytes are the cells, are they not, that determine delayed allergy? How is delayed reactivity or allergy mediated by circulating substances?

DR. ALAN L. BISNO: I would like to answer that, if I may. Delayed allergy is actually a slower procedure for immune clearance. It takes time for the specifically sensitized circulating lymphs to pass by and recognize, say, PPD in a skin test and to accumulate at the site of introduction of the antigen. This is a slower method of recognition than that of a direct encounter of circulating antibodies with an organism and its subsequent opsonization and phagocytosis by polys. One can look at the system of defense this way: if an organism is presented and is "knocked off" by the poly, then no further help is needed. If, however, it escapes detection by the poly because of a surface structure that escapes recognition, the organism multiplies and reaches the lymphatics and lymph nodes. Then lympho-

cytes are sensitized and begin to multiply in response to it. Over a period of several days, the circulating lymphs and those around the periphery of lymphatic tissue in some way transmit the call for help to the tissue fixed system of defense—the germinal centers of the spleen, lymph nodes (particularly Peyer's patches) and marrow. The lymphocytic systems thus reached react both to produce sensitized lymphocytes and to form antibodies. The latter is the system that we can clearly see in the avian species to be housed in the bursa of Fabricius. These stimulated cells presumably are then capable of transforming to plasma cells and these elaborate antibodies. Finally, the antibodies get into the fight and are ultimately the most sophisticated defense that man has in overpowering an offending agent. Meanwhile, however, lymphocytes are also being programmed for "cellular immunity" as well because the same antigens that elicit antibody responses can also sensitize lymphocytes. For some infections the rapid action of antibodies is crucial in defending the host, especially against rapidly growing organisms such as streptococci and pneumococci. In other infections, the organism takes refuge inside cells and the immune properties of the cells themselves are crucial. Furthermore, some antigens are poor antibody stimulators (like PPD) but very strong stimulators of cellular immunity.

DR. STOLLERMAN: We divide the immune clearance system into two categories because of the examples that nature has supplied us of isolated deficiency of the cellular immune system, such as that seen in the case of Hodgkin's disease and herpes zoster presented here earlier, and of isolated immunoglobulin deficiency states, such as that seen in Bruton's agammaglobulinemia.

You mentioned that further studies were obtained on the patient you presented and I assume that you were referring to studies of immunologic competence. Let me say now that I would expect your studies of this patient to show little or no "delayed allergy" or cellular hyperimmunity to a battery of skin tests and an inability to "stimulate" or transform this patient's lymphocytes *in vitro* with substances such

as phytohemagglutinin. These defects are the most classical deficiencies seen in a Hodgkin's disease patient, although, to a lesser extent, their antibody forming system may also be less efficient.

DR. NARDO: This patient did have the classical immunologic deficits that you suspected. We applied intermediate PPD, histoplasmin, trichophyton, monilia, streptococcal and mumps skin tests and he showed absolutely no skin reactivity to any of these. This is particularly significant in view of his history of having had previous "strep throats" as a child and also a well documented case of mumps with orchitis as a teenager, both of which should have produced strong delayed allergy skin reactions to their respective antigens.

In addition, we attempted to demonstrate lymphocyte stimulation or transformation in vitro by incubating his lymphocytes in a tissue culture medium and quanti-

tating the amount of incorporation of tritiated thymidine into nuclear DNA of the lymphocytes in the presence of phytohemagglutinin. His was approximately one-third the value of control, indicating a deficiency of immunoresponsive lymphocytes.

DR. BISNO: A distinct deficiency of either humoral immunity or cellular immunity is not always clearly defined. Many disease states have multiple or overlapping immunologic faults. We should also attempt to separate these into acquired (post-maturation) and maturational types. Table 2 lists some of the major postmaturation or acquired deficiencies in adults.

DR. STOLLERMAN: For the sake of completeness, let us also look at a couple of tables which provide an outline of the diseases of maturation of the lymphoid system (Tables 3 and 4). It is in some of

Table 2

ACQUIRED DEFICIENCIES IN ADULTS (Postmaturation)

1. *Diseases of lymphoid tissues*
 - a. Immunoglobulins—humoral Immunity
 - 1) Multiple myeloma—plasma cells
 - 2) Dysglobulinemias—Waldenstrom's
 - 3) Lymphosarcoma
 - 4) Lymphocytic leukemia
 - b. Circulating lymphocytes—cellular Immunity
 - 1) Benign granulomas assoc. with anergy
sarcoidosis; leprosy
 - 2) Malignant granulomas with anergy
Hodgkin's disease; reticulum cell sarcoma

Table 3

DISEASES OF MATURATION OF THE LYMPHOID SYSTEM²

Level of Defect	Disease	Deficiency	
		Cellular	Humoral
A. <i>Thymus alone</i>			
1. Absent thymus and parathyroids (3rd and 4th branchial arches)	DiGeorge syndrome	+	—
2. Epithelial thymus only	Thymic alymphoplasia	+	—
B. <i>Thymus + peripheral lymphoid</i>			
1. Epithelial thymus and 1 lymphoid tissue peripherally or	Thymic alymphoplasia with agammaglobulinemia or	+	+
2. Swiss type (sex linked)	Selective Ig deficiencies	+	+
3. Epithelial thymus alone		+	+

2. Adapted from Graf, M. W., and Uhr, J. W., Diseases of maturation of the lymphoid system. *Advances Intern. Med.* 15:397, 1969.

Table 4

DISEASES OF MATURATION OF THE LYMPHOID SYSTEM, cont.²

Level of Defect	Disease	Deficiency	
		Cellular	Humoral
C. Immunoglobulin Producing System			
1. Absent	Bruton's agamma-globulinemia	—	+
2. Deficient	Idiopathic—acquired	—	IgG, IgA, IgM +
D. Thymus + Peripheral Lymphocytes + Granulocytes			
	Reticular dysgenesis	—	—
E. Miscellaneous			
	Ataxia—Telangiectasia	±	±

these conditions that the distinctions between cellular and humoral immunity are often not clear and tend to overlap. However, by a methodical approach to the problem, one can delineate these failures of host defense, and it can be done quickly and efficiently.

To summarize, if an old man with back pain comes in with pneumococcal pneumonia, your first thought should be multiple myeloma. In modern medicine one cannot simply treat a pneumococcal pneumonia and accept its purely accidental occurrence. Quickly, one must work up these deficiencies. Electrophoretic patterns are available, and although they are very gross they are easy to use. Immunoelectrophoresis is much more specific, although laborious. But there are simple radial gel diffusion tests that you can now obtain commercially to assay antibodies to IgG, IgM, and IgA. One can therefore take the patient's serum and measure the radius of a precipitate in a gel diffusion system on a commercially available agar coated slide. In this manner, a deficiency of at least these 3 antibodies can be spotted quickly. One can also do a battery of screening tests for common antibodies which we all normally possess that is quite simple. Anybody who does not have at least one of 3 antibodies to the streptococcus or one of 4 antibodies to the common influenza strain (A, A₂, Hong-Kong, and B) is probably highly antibody deficient. In other words, in this room, I should find one of these 7 antibodies in all of you, unless you have something

wrong with your immunity or have grown up in cellophane! These 4 influenza antibodies can be tested quite routinely. One can quantitate IgM by titrating blood group antibodies. They are easy to do, and if there is a deficient titer of your blood group antibodies, then you are not making adequate IgM, because that is what blood group antibodies are. One can give a patient typhoid antigen and normally one would observe a typhoid titer increase in less than 7 to 10 days. "Flu" vaccine also provides a simple challenge. These are easy ways of testing antibody responses. In delayed allergy we have a more statistical approach: one can give a patient 4 or 5 antigens, and if he responds to none of them the statistical probability is that he is anergic. If you do not respond to "athlete's foot," as trichophyton, nor to candida, nor to streptococci, nor to histoplasmin or tuberculosis, then, again, you are either a "strange creature" or you are anergic!

Finally, there are tests that are more specific in which one actually applies dinitrochlorobenzene to the skin, and all of you, if you are competent immunologically, should develop delayed allergy to this chemical compound. We do not care to use such tests routinely because one is sensitizing people in the process to an artificial antigen, however rare that antigen may be. In a patient in whom the issue of anergy is crucial, I would have no hesitancy in attempting to sensitize him to one of the dinitrobenzenes. In modern clinical practice, testing for immunologic competence

should be routine in infectious diseases where an unusual susceptibility of the patient is suspected. Such tests for immune competence should also be routine in diseases of the lymphoid system, and should be routine in all the iatrogenic approaches to the treatment of patients which cripple the lymphoid system, e.g. corticosteroids,

cancer chemotherapy, irradiation, immunosuppressive drugs, etc.

DR. SUTTON: Dr. Walter Norton's group in the immunology section has outlined a practical clinical work-up of the problems we have been discussing and I think the final table is appropriate in concluding the conference (Table 5).

Table 5

IMMUNOLOGIC EVALUATION OF PATIENTS WITH SUSPECTED IMMUNE DEFECTS

1. Immunoglobulin and antibody function:
 - Serum protein electrophoresis
 - Serum immunoelectrophoresis
 - Immunoglobulin quantitation (radial immunodiffusion)
 - Serum antibody titers:
 - ASO
 - isoheamagglutinin (anti - A, anti - B) titers
 - viral Ab titers:
 - influenza A,B
 - poliomyelitis
 - herpes simplex
 - Typhoid Ab titers: pre- and post-vaccination
 - Other:
 - RA test
 - FANA
 - LE Prep
 - Cryoglobulins
2. Delayed hypersensitivity (cellular immunity) function:
 - Skin tests:
 - a) histoplasmin
 - b) PPD
 - c) mumps
 - d) candida
 - e) trichophyton
 - f) streptococcus (M-protein)
 - DNCB sensitization
 - In vitro response of lymphocytes to PHA (phytohemagglutinin)
 - Peripheral blood WBC/differential: % lymphocytes
3. Family studies:
 - Skin tests
 - Ig evaluations (dysproteinemia, hypogammaglobulinemia, etc.)
 - Autoimmune diseases
 - Etc.
4. Lymph node pathology

* * *

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From the
Executive
Director
J. Ballentine

MEDICAL DIGEST

News of Interest to Doctors in Tennessee

ABSTRACT OF TMA BOARD ACTIONS

CONTAINMENT OF MEDICAL CARE COST . . . The TMA Board of Trustees, at its Third Quarter Meeting on July 12, acted upon a number of issues, and one of the most important was the consideration of participating in a second conference on Containment of Medical Care Cost, sponsored by the Tennessee Mid-South Regional Medical Program. Attending this meeting were to be representatives from labor, various consumer groups and those urging the group practice type delivery of medical care . . . TMA representatives attended the initial conference on Containment of Medical Care Cost and a second conference was scheduled for July 31 . . . The objective of the second conference was to share information as a prelude to increased activities and communication between agencies and consumers . . . Discussed were better utilization reviewing hospitals with peer action; computer systems in discovering problem admissions; third party pressures; educational providers; deliberate limitation of beds; reimbursement mechanisms to hospitals and physicians; and new patterns for organizing care . . . Participants included representatives from the TMA Board of Trustees, the Committee on Socio-Economics of Health Care, and representatives from the Blue Shield Plans in Tennessee . . . It was the unanimous decision of the Board that TMA should participate in such discussions wherever conducted.

* * * * *

CONTINUING MEDICAL EDUCATION . . . A considerable portion of the Board's session dealt with the Continuing Education Program . . . Dr. Nesbitt, President, recommended that TMA get into the continuing education activity aggressively. He recommended funding the program through the Regional Medical Program, which could provide the financing necessary for TMA to develop and present a maximum Continuing Education Program. It was recommended that a project grant should be applied for to study and plan, and to proceed with a functioning and effective primary medical education program for physicians in Tennessee. A full-time staff should be employed to administer and study what physicians of the State desired in continuing education. Such a study should be made before any operational and on-going program is presented. It was recommended that the proposed program have a full-time director . . . Action adopted was that the TMA Board should participate as far as possible in the development of and in cooperation with RMP, a post-graduate medical education program for physicians, and that steps be taken to obtain a planning grant and project grant, to develop the program. The Board referred the matter to the TMA Continuing Education Committee for study, directing that the Committee bring back a report prior to the meeting of the House of Delegates in April, 1971.

DEPARTMENT OF SAFETY REQUESTS REVIEW COMMITTEES . . . Acting upon a request from the Tennessee Department of Safety, the Board forwarded the request to the TMA Communications and Public Service Committee to consider appointments of medical review boards in Tennessee to advise the Department of Safety in determining questionable cases of licensure for driving permits of older citizens . . . The Safety Department had requested that eight district committees be established which should include an ophthalmologist, a general practitioner or internist, and a pathologist to comprise such committees . . . The Board recommended that the Communications and Public Service Committee study the matter for implementation, and report their recommendations to the Board.

* * * * *

HIGHLIGHTS OF OTHER ACTIONS . . . Visiting the Board of Trustees, was Dr. Alvin J. Ingram, Memphis, who for the past six years has been a member of the AMA Board of Trustees. Also visiting was Dr. John Chenault, Decatur, Alabama, a present member of the AMA Board of Trustees. Dr. Chenault offered his assistance to TMA in any manner possible for liaison purposes with the AMA Trustees . . . Heard a report from Drs. Nesbitt and Cole relative to the Tennessee Higher Education Committee study. The Board acted to transmit a letter to the Governor thanking him for appointing Dr. Marcus Stewart, Memphis, to the Board of Trustees of the University of Tennessee, and for appointing Dr. Roland Myers to the Board of the Tennessee Higher Education Committee . . . Confirmed appointments to the State Board of Medical Examiners and confirmed the appointment of Dr. Robert C. Coddington of Chattanooga to the Advisory Committee to the State's Crippled Childrens Service . . . The Board of Medical Examiners now consists of Drs. Spencer Bell, Knoxville; William K. Owen, Pulaski; Harold Butler, Union City; Tinnin Martin, Memphis; and Howard Foreman, Nashville . . . Heard recommendations presented by TMA President to stagger House of Delegates Reference Committee meetings in order that more physicians may attend . . . Adopted the quarterly financial statement and a report on the progress of the TMA Headquarters building expansion, as submitted by the Executive Director . . . Recommended that a gift of \$100 be made to TMA Student Education Fund in memory of Dr. H. L. Monroe of Erwin, a TMA past President . . . Approved a loan of \$5,000 to the TMA Student Education Fund for the purpose of making additional loans to medical students . . . Received a report on responsibilities of a full-time publicity and public service director . . . Recommended Dr. Bertram M. Sproffkin, Nashville, for election to the AMA Council on Scientific Assembly . . . Approved TMA's sponsoring a charter flight for members, to the Orient in the fall of 1971.

* * * * *

TMA COMMITTEE ON SCIENTIFIC AFFAIRS AND REPRESENTATIVES OF SPECIALTY SOCIETIES PLAN 1971 MEETING . . . TMA's Committee on Scientific Affairs met on July 18 to plan the 1971 Annual Meeting in Chattanooga, April 15-16-17 . . . TMA will sponsor two outstanding nationally recognized speakers on Friday morning, April 16. The President-Elect of the AMA has been invited and an outstanding name speaker will be sought who will be a person with a message that everyone will want to hear . . . Medical Specialty Societies will conduct their sessions all day on April 15, the afternoon of April 16 and all day April 17.

Public Service

Communications Legislation

Hadley Williams, Public Service Director

MISSOURI MEDICAID IN FISCAL JAM . . . The Medicaid program in Missouri has cut \$6.5 million from its budget requiring a reduction in the number of inpatient hospital days from 21 per admission to 14. A \$5 per visit ceiling on payments for outpatient care was also imposed as well as limiting other outpatient benefits. Payments to physicians for elective procedures have been eliminated and the maximum amounts allowable for physicians services was reduced by 12%.

* * * * *

GET READY FOR 'NADER'S RAIDERS' . . . Reports continue to be heard about consumer crusader Ralph Nader beginning investigations of physicians and hospitals. A former FDA medical officer and House subcommittee investigator, Robert S. McCleery, M.D., will direct a probe into the area of self-regulation by the medical profession. Investigators are expected to visit AMA Headquarters as well as state and county medical societies, hospitals and physicians' offices. A study of nursing homes is another Nader project.

* * * * *

IRS DEFINES TAX STATUS OF MEDICARE . . . The IRS has stated that basic Medicare benefits, those financed by payroll taxes and available to most persons age 65 and over, are legally the same as Social Security. Part "B" of Medicare, which covers only those who choose to enroll and pay the monthly premium, is treated like proceeds from private health and accident insurance, which aren't considered income. An elderly person's status as a dependent may be affected by Medicare, since a taxpayer must pay over half of a person's support to be claimed as a dependent. IRS has indicated that basic Medicare benefits will be counted as support the recipient provides for himself. Part "B" benefits will not constitute support, but the premiums paid for the coverage will be support provided by whoever pays them.

* * * * *

OPERATION MEDIHC . . . A new program has begun in Tennessee designed to aid the health manpower shortage. Tabbed "Operation MEDIHC" (Military Education Directed Into Health Careers), the project could be instrumental in providing a significant resource of health manpower from those trained by the military and returning to civilian life. The program in Tennessee is being coordinated by the federal government with the Office of Comprehensive Health Planning, Tennessee Hospital Association, and Tennessee Health Careers. Brief resumes of military personnel with training and experience in various health fields who are being discharged and have indicated they will reside in Tennessee, are being forwarded weekly to hospital personnel directors. In the past, the majority of military personnel being returned to civilian life have not

pursued careers in which they have received training. Any employer of persons for health related job positions may also receive resumes of individuals by contacting the Health Careers for Tennessee office in Nashville.

* * * * *

COMMUNITY HEALTH WEEK SET FOR OCTOBER 18-24 . . . The 8th annual nationwide observance of Community Health Week will be held October 18-24. More than 50 National health associations and agencies and their state affiliates have been urged by AMA to join with medical societies in planning and participating in local Community Health Week programs. AMA will again furnish kits of programming materials for this excellent public service project to county societies requesting them.

* * * * *

AVAILABLE FROM AMA . . . Desk top signs and wall plaques for use in physician's offices and waiting rooms stating "NO SMOKING PLEASE" and "For the Sake of Your Health and the Comfort of Others-No Smoking Please" are available from AMA. Cost for the desk signs are 95¢ each, for five or more or \$1.25 each for less than five and the wall plaques are \$1.50 each.

* * * * *

SPEECH WRITER AVAILABLE . . . The AMA's Officers Services Department now makes available on request an invaluable kit called, "An Aid to Speakers." The kit contains a veritable wealth of source materials, ranging from generalized speeches aimed at lay audiences to numerous, up-to-date training tips. Single copies are free to physicians and are also available to medical societies that sponsor speakers bureaus.

* * * * *

NEW SERVICE OFFERED HOSPITALS . . . The Liaison Committee of the American Medical Association and American Hospital Association has announced that the committee is available to help in arbitrating disputes between medical staffs and hospital boards. Additional information can be obtained by writing the Office of the Executive Vice-President, AMA, 535 North Dearborn Street, Chicago, Illinois 60610.

* * * * *

PRIVATE MEDICINE IN ENGLAND . . . Over 2 million Britons, twice the number of ten years ago, now carry private medical insurance and the number is increasing. These same citizens must, of course, pay taxes and assessments to cover the National Health Service, but do not object to paying twice since it results in better hospital accommodations and their free choice of physicians and surgeons.

* * * * *

AMERICAN SOCIETY OF INTERNAL MEDICINE . . . This society has been awarded a contract by the Department of HEW for thirty months to develop and test methodologies for assessing quality of care in offices of internal medicine. ASIM has selected Colorado, Georgia, New York and Washington as study areas.

* * * * *

MEDI-CREDIT . . . Representative Richard Fulton (D-Tennessee) and Representative Joel Broyhill (R-Virginia) have introduced the Health Insurance Assistance Act of 1970, which incorporates most features of AMA's national health plan. The Bill provides total government subsidy of private health insurance for poor, sliding scale tax credit for persons having tax liability of \$301 or more. The Bill also would set up peer review mechanisms for agreements between government and state medical associations.

President's Page



TOM E. NESBITT

With the primary elections a matter of record, the real political campaigns of 1970 are underway, pointing to the second Tuesday in November. As doctors, we have an opportunity now to participate in these campaigns by giving support to those men who represent our views. Through two vehicles, IMPACT and AMPAC, we are able to support not only those men we know personally, but, as well, other qualified men on a statewide and national basis, whose views are known to be similar to ours. IMPACT is Independent Medicine's Political Action Committee—Tennessee and AMPAC is the American Medical Political Action Committee.

As government has increasingly entered into the area of medical care financing and thereby, indirectly, into the affairs of doctors, we have had to respond by engaging in affairs of government—namely, political action. This political action calls for concerned involvement in the selection of government officials. The choice of competent men for service in the political life of our country should be considered an obligation of the highest priority by all Tennessee doctors. I, therefore, urge you to join IMPACT as an expression of that obligation.

For a minimum contribution of twenty-five dollars (\$25.00) you will be joining both IMPACT and AMPAC. Your contribution will be used entirely for candidate-support, and only in those situations where it is felt that money will have a reasonable chance of favorably influencing the outcome of an election. Decisions regarding placement of money are made after exhaustive consideration and study by a non-partisan group designated by the IMPACT Board of Directors.

We realize that financial support of a successful candidate will not necessarily guarantee a vote to our liking on all issues. However, such support will usually offer us an audience and thereby an opportunity to present medicine's views fairly and accurately. The medical profession is in great need of friends in the legislative halls of both Nashville and Washington who will give fair consideration to our beliefs on subjects related to medical care. In order for doctors to speak effectively to those men who make political decisions in government, it is imperative that medicine participate in the funding of their campaigns.

Ask your secretary *right now* to send your check for \$25.00—or more—made out to IMPACT, and mail to Dr. Armistead Nelson, Chairman, IMPACT Board of Directors, P. O. Box 645, Nashville, Tennessee 37202, or your local Board member. Join with the other doctors of this country in a united effort to select responsible men for public service in government.

Sincerely,

A handwritten signature in cursive script that reads "Tom E. Nesbitt".

M.D.

President

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R. H. KAMPMEIER, M.D., Editor

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SEPTEMBER, 1970

EDITORIAL

THE MALPRACTICE PROBLEM AND GOVERNMENTAL INTEREST

The federal government is so committed to exercising control in the provision of medical care that inevitably it will become concerned with each of its facets. Its major claim to concern about malpractice suits is expressed in terms of "quality of care." However, responsible citizens, and therefore legislators, should be concerned with the ultimate effects of the constantly rising incidence of malpractice suits upon liability insurance and its likelihood of becoming priced out of reach for physicians, and what commonly may *not* be recognized—impairment of quality care.

In the fall of 1969, the government released a thousand-page volume prepared by the Senate Subcommittee on Executive Reorganization, its chairman, Senator Ribicoff (D., Conn.), its title *Medical Malpractice: The Patient vs. the Physician*. It was stated by the Senator that the increase in litigation "threatens to become a national crisis."

Recently Mr. Eli P. Bernzweig, an attorney who has authored papers and books on malpractice, was appointed as special assistant for malpractice research and preven-

tion in the Community Health Service of HEW. (This editorial comment has been culled from an interview with this attorney by a representative of *Physician's Management*, published in the April 1970 issue.)

Mr. Bernzweig indicated that Senator Ribicoff believes the federal government has a stake in the malpractice problem because of the billions of dollars poured into medical care and therefore its share in the overhead costs of increasing premiums for liability insurance. Furthermore, its interest in "quality of care" for which it is paying offers additional reason in investigating the malpractice problem to learn if it (the government) can assist the medical and legal professions and the insurance carriers in some solution of this "headache."

Presumably it is the assignment of this new Special Assistant to study and evaluate the problem of malpractice litigation. (For 4 years he was the responsible reviewer of malpractice cases against the USPHS before they came to trial.) He makes the valid point that there are no reliable statistics upon the malpractice situation. He implies that what information is available involves much bias when coming from the experiences of *either* the medical or the legal professions, each blaming the other for much of the current problem with relatively little dialogue on an unemotional level between them. Bernzweig thinks the insurance carriers show little interest in bettering the situation because liability insurance constitutes a small portion of the insurance business and thus represents a nuisance which, however, if given up would leave a serious vacuum.

After critical comments about doctors, lawyers and insurance companies, Mr. Bernzweig was led by the interviewer into the less defined considerations of patients and their complaints and inability to evaluate health care, patients who do *not* entertain or initiate suits. He points out their only recourse is to write complaining letters to hospital trustee boards, to county or state medical societies, or to a state board of medical examiners. He points to the bias of the recipients of such letters and their likely dismissal as the gripe of an ignorant or disinterested person.

What to do about all this? Bernzweig states that much indicated research will be begun to gather meaningful statistical data on malpractice litigation. This will be needed to arrive at remedies, and especially at prevention of this most troublesome problem. For the nonsuing discontented patient he suggests an ombudsman, someone (a psychologist) in a hospital, for example, who may listen, as an unbiased but knowledgeable person, to patients' complaints. He cites such an approach in a medical group on the West Coast.

Thus, the interviewer for *Physician's Management* and Mr. Bernzweig have pointed up a new path the federal government is to tread in the provision of medical care.

Senator Ribicoff has indicated the stakes government has in the malpractice problem both as a payor and as a protecting "Great White Father" of the "quality of medical care." By implication, if not by direct statement, the publicists usually interpret this latter phrase in terms of shortcomings of the medical profession.

The other side of the coin is "impairment of quality of medical care," because of the ever-present sword of liability hanging over the doctor's head in some areas of this country. I have been told by colleagues from California that diagnostic lumbar punctures are avoided, at times to the patient's harm, because of possible suits for "backache," especially if the results of the examination are negative. This applies to other diagnostic procedures as well. Too, there is the serious governmental stake, of which one hears little, when the profession fears to carry out USPHS recommendations for immunization where technical incompetence is not under consideration—as giving Salk vaccine on a lump of sugar to be followed by a rare instance of paralytic poliomyelitis and a judgment against both physician and the pharmaceutical house.

Surely sooner or later some means must be found out of the malpractice dilemma as premiums go up and up, and as insurance carriers either are getting out of the liability business or threatening to do so. But, as I have plead on these pages over the years, I wish the voice of the practitioner

of medicine might be heard among those of laymen and medical bureaucrats, and especially in this instance, of lawyers.

R.H.K.

IN MEMORIAM

Downey, Fred M., Jr., Nashville. Died July 30, 1970, Age 35. Graduate of George Washington University, 1959. Member of Nashville Academy of Medicine.

English, Arthur Brown, Bristol. Died July 27, 1970, Age 87. Graduate of University of North Carolina, 1906. Member of Sullivan-Johnson County Medical Society.

Marchbanks, Stanton Sanders, Chattanooga. Died July 19, 1970, Age 88. Graduate of Vanderbilt University School of Medicine, 1913. Member of Chattanooga-Hamilton County Medical Society.

Southworth, James L., Knoxville. Died July 4, 1970, Age 56. Graduate of University of Oklahoma, 1938. Member of Knoxville Academy of Medicine.

Stanton, G. V., Limestone. Died July 24, 1970, Age 60. Graduate of University of Tennessee School of Medicine, 1935. Member of Washington-Carter-Unicoi County Medical Society.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES



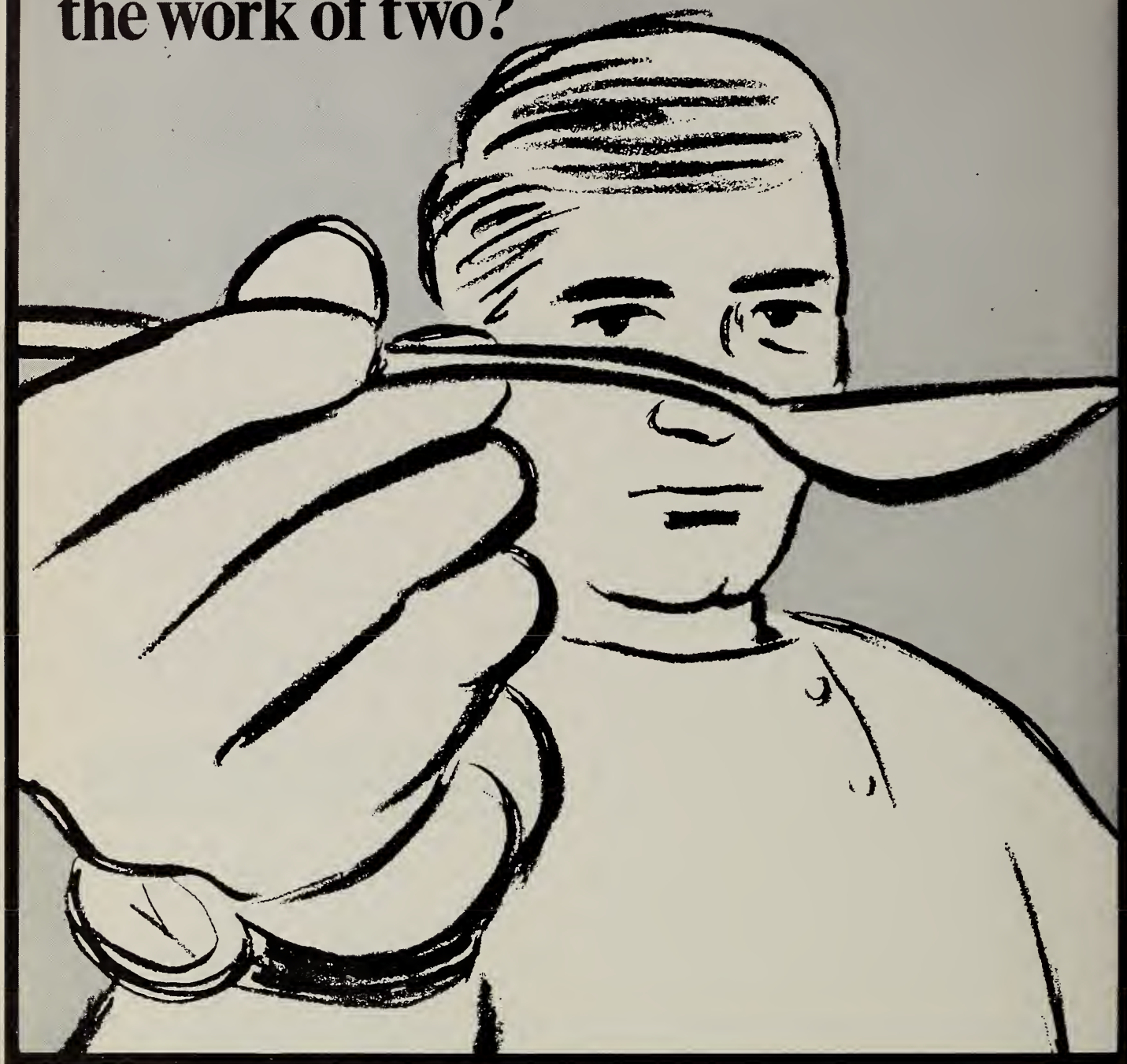
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Rolland F. Regester, M.D., Knoxville

**MEMPHIS-SHELBY COUNTY
MEDICAL SOCIETY**

Lovely A. Free, M.D., Memphis
James A. Gualtney, M.D., Memphis
James G. Johnson, M.D., Memphis
Rodney Y. Wolf, M.D., Memphis

**SULLIVAN-JOHNSON COUNTY
MEDICAL SOCIETY**

Donald B. Aspley, M.D., Kingsport

NATIONAL NEWS

The Month in Washington

(From Washington Office, AMA)

A Democratic and a Republican member of the House Ways and Means joined to introduce the American Medical Association's Medigap plan for federally subsidized national insurance.

The co-sponsors of the legislation (H.R. 14567) were Reps. Richard Fulton (D., Tenn.) and Joel T. Broyhill (R., Va.). Both are members of the House Ways and Means Committee which has jurisdiction over such legislation. Soon after introduction of the Fulton-Broyhill measure, Rep. Omar Burleson (D., Tex.), also a member of the Ways and Means Committee, and Rep. John Jarman (D., Okla.), chairman of the House Commerce Subcommittee on Health, introduced an identical bill. Other members of the house from both major political parties indicated they also would become co-sponsors.

Fulton, who 18 months ago introduced legislation based on the Medigap principles for financing private health insurance for individuals, told the House that the new bill "represents . . . a vast improvement over its predecessor by reason of the fact that it encompasses a built-in mechanism for cost control." He referred to mandatory peer review.

Speaking for himself and the measure's co-author, Rep. Joel T. Broyhill (R. Va.), Fulton said the time for national health insurance has come.

"And whether we're talking about the Rockefeller approach, the AFL-CIO approach, the Kennedy approach, or the approach taken by the Committee of 100, all of them advocate sweeping changes in our health care system," Fulton said.

"An across-the-board national health insurance plan, operated regardless of need, will carry a price tag of sobering size. And no such plan I have yet seen includes—at least to my satisfaction—a mechanism which promises effective cost control at the taxpayers' money.

"This brings us to an essential element of Medigap—its provision of peer review. This bill calls for a constant and unremitting policing mechanism."

The other two parts of the Medigap legislation would provide for the federal government financing or assisting in the financing of medical and hospital care for individuals and their dependents through participation in the cost of insurance policies of their choice—100 per cent premium payment for the low-income groups, and graduated participation in the payment of premiums for other persons, based on their federal income tax liability.

Congress is not expected to take up this year proposals for national health insurance. But reaction to the AMA peer review plan has been highly encouraging, and prospects appeared good that Congress would approve such a plan this year for Medicare and Medicaid. Sen. Wallace F. Bennett (R., Utah), a Senate finance committee member, directed the committee's staff to work with AMA staff representatives in drafting such legislation as an amendment to a bill revising Medicare and Medicaid.

In a speech on the Senate floor, Bennett said there is deep concern over the high costs of Medicare and Medicaid. He complimented the AMA on advancing peer review as a means of curbing these costs. He said:

"I believe the American people are justifiably concerned over the tremendous costs of health care. Much of that concern, it seems to me, is a product of a very real feeling that we are not getting what we are paying for. I believe, equally, that much of the apprehension, anxiety, and

suspicion now prevalent—for better or worse—with respect to those responsible for health care would disappear if professional standards review organizations were established and functioned effectively. It seems to me that the American people are entitled to know that American medicine shares their concern—and more importantly—proposes to do something substantial about it through means of professional standards review organizations . . .

“I believe that physicians, properly organized and with a proper mandate, are capable of conducting an ongoing effective review program which would eliminate much of the present criticism of the profession and help enhance their stature as honorable men in an honorable vocation willing to undertake necessary and broad responsibility for overseeing professional functions. If medicine accepts this role and fulfills its responsibility, then the Government would not need to devote its energies and resources to this area of concern. Make no mistake; the direction of House-passed social security bill is toward more—not less—review of the need for and quality of health care. I believe my amendment would provide the necessary means by which organized medicine could assume responsibility for that review.”

Bennett said that, under his amendment, review groups would have responsibility for reviewing “the totality of care provided patients—including all institutional care.” That responsibility he said, would be lodged, “wherever possible and wherever feasible,” at the local community level. He said:

“Local emphasis is necessary because the practice of medicine may vary, within reasonable limits, from area to area, and local review assures greater familiarity with the physicians involved and ready access to necessary data. Priority should be given to arrangements with local medical societies—of suitable size—which are willing and capable of undertaking comprehensive professional standards review . . .

“Under the amendment, the Secretary (of Health, Education and Welfare) could use state or local health departments or employ other suitable means of undertaking pro-

fessional standards review only where the medical societies were unwilling or unable to do the necessary work, or where their efforts were only pro forma or token. Let me emphasize as strongly as possible that the thrust of this proposal is to have physicians, as a group, evaluate physicians and the services they provide and order as individuals.”

Bennett said that the review committees should determine that only medically necessary services are provided by physicians, hospitals, nursing homes and pharmacies, and that these services meet proper professional standards.

Disciplinary measures, he said, would be in proportion to the offense and could include: 1) monetary penalties, 2) suspension from federal programs, 3) exclusion from federal programs, 4) civil or criminal prosecution, and 5) steps leading to the suspension or revocation of professional licensure.

Concerning the peer review part of his bill—H.R. 18567, “Health Insurance Assistance Act of 1970”—Fulton said:

“The appropriate medical societies would be charged with establishing a peer review mechanism that would, among other things, review individual charges and services, wherever performed; review hospital and skilled nursing home admissions; review the length of stays in hospitals and skilled nursing homes; and review the need for professional services provided in the institution.

“The process of ongoing review can have nothing but a salutary effect on the providers of services, thereby cutting down on the occasional or unintentional abuses that would otherwise occur.

“Patterns of abuse would be detected, and the abusers either suspended from or excluded from the program. Exclusion could follow action by the Secretary of Health, Education and Welfare upon the recommendation of the peer review committee.

“In the case of fraud, or other clear intentional misconduct, the peer review committee would be expected to bring charges before the appropriate licensing body.

“And in the event that a peer review

committee was *not* established by the medical society within a reasonable time, or if established was not functioning, the Secretary of HEW, in consultation with the medical society, would be empowered to appoint a peer review committee that would function."

The Fulton-Broyhill bill would provide that an individual having a tax liability of \$300 or less in a base year be entitled to a certificate acceptable by carriers for health care insurance for himself and his dependents. Insurance purchased with such a full-pay certificate would require no beneficiary participation in health care charges. Federal contribution to insurance purchased by individuals under this part of the program would be scaled in favor of low-income taxpayers—from 98% if the taxpayer's base year income tax is between \$301 and \$325, to 10% when his tax liability exceeds \$1,300. Basic benefits in a 12-month policy period would include 60 days of inpatient hospital care. To encourage utilization of less expensive facilities, two days in an extended care facility would count as one day of the 60 days allowed. Other basic benefits would include emergency and outpatient services, and all medical services provided by a doctor of medicine or osteopathy.

A supplemental coverage could provide, in addition, one or more of the following: prescription drugs not otherwise covered, additional days of inpatient and extended care services, blood in excess of three pints, personal health services when furnished on written direction of a physician, diagnostic and therapeutic services, and catastrophic coverage of all hospital and medical costs, up to \$25,000, after the first \$300 of incurred expenses borne by the beneficiary.

* * *

The Federal Communications Commission approved an application for local medical societies to operate special emergency radio services for their members.

The FCC said that such hookups could carry only messages relating to the safety of life or urgent medical duties of users. Such emergency radio service must be co-operative, with members assessed pro rata shares for cost of operation, the FCC said.

Previously, individual physicians have been allowed to use emergency radio frequencies and to form groups of physicians for such hookups, but societies representing all physicians in an area have been restricted by FCC regulations.

The FCC said in its ruling:

"There is merit in the plan to use these stations on a coordinated basis with telephone answering services now operated by medical societies and to dispatch messages from central points where society records are readily available to assist in locating a physician when called . . . The proposal gives promise of fostering the opportunities for service in remote, rural regions . . . (and) would permit the establishment of parallel systems for emergency communications which would be in existence and available for use in times of national crises."

Medical societies that petitioned the FCC included Academy of Medicine of Cleveland and Cuyahoga County, Fayette County, Fresno County, King County, Los Angeles, Maricopa County, Montgomery County, Oklahoma County, San Joaquin, Milwaukee County, Sacramento County, and Travis County. They were joined by the American Medical Association.

MEDICAL NEWS IN TENNESSEE

Physicians Urged to Assist with Health Manpower Shortage

A memorandum was recently distributed by Mr. M. T. Bruner, Director, Office of Comprehensive Health Planning, Department of Public Health, urging physicians and other employers of health personnel in the State of Tennessee to assist in the development of a resource of trained health manpower.

According to Mr. Bruner, steps are being taken by the Tennessee Comprehensive Health Planning Council to insure that technical and occupational training programs, financed by state and Federal government funds, address labor needs of health institutions. However, the efforts of the state and area wide comprehensive health planning agencies are hampered by inadequate projections of health manpower

TENNESSEE VALLEY MEDICAL ASSEMBLY

(Sponsored by the Chattanooga and Hamilton County Medical Society, Inc.)

THE READ HOUSE, CHATTANOOGA, TENNESSEE

Monday, October 19, and Tuesday, October 20, 1970

18TH ANNUAL ASSEMBLY

Monday, October 19, 1970

- 7:30 REGISTRATION BEGINS
- 9:00 WILLIAM SCOTT, JR., M.D., Prof. and Chairman, Dept. of Surgery, Vanderbilt University School of Medicine, Nashville, Tennessee, "*Massive Jejunio-Ileal Shunt in Morbid Obesity*."
- 9:30 JAMES R. JUDE, M.D., Div. of Thoracic and Cardiovascular Surgery, University of Miami, Miami, Florida, "*Indications, Evaluation and Current Surgical Treatment of Ischemic Myocardial Disease*."
- 10:00 A.M. INTERMISSION—EXHIBIT VISITATION
- 10:30 STEWART A. FISH, M.D., Prof. and Chairman, Dept. of Obstetrics and Gynecology, University of Tennessee College of Medicine, Memphis, Tenn., "*New Concepts in Obstetric Analgesia*."
- 11:00 FRANK G. MOODY, M.D., Prof. of Surgery; Director, Gastrointestinal Division, University of Alabama Medical Center, Birmingham, Ala., "*Surgical Management of Portal Hypertension*."
- 11:30 RONALD C. JONES, M.D., Associate Prof., Dept. of Surgery, University of Texas, Southwestern Medical School, Dallas, Texas, "*Abdominal Trauma*."

MONDAY LUNCHEONS

Emergency Care Symposium

- 12:30 P.M. to 4:00 P.M.—CONTINENTAL ROOM—READ HOUSE
- Speakers:*
WILLIAM SCOTT, JR., M.D., whose subject will be "*Shock*"
JAMES R. JUDE, M.D., "*Cardiac Resuscitation*"
NEIL CHAYET, Atty., "*Legal Aspects*"
WM. G. THURMAN, M.D., "*Drug Reactions*"
Moderator: C. ROBERT CLARK, M.D.

Endocrinology Symposium

- 12:30 P.M. to 4:00 P.M.—CHESTNUT ROOM—READ HOUSE
- Speakers:*
ROBERT GREENBLATT, M.D., Augusta, Ga.
STEWART FISH, M.D., Memphis, Tenn.
Moderator: ROBERT G. DEMOS, M.D.

— End of Day —

Tuesday, October 20, 1970

- 8:00 REGISTRATION BEGINS
- 9:00 WILLIAM G. THURMAN, M.D., Prof. and Chairman, Dept. of Pediatrics, University of Virginia School of Medicine, Charlottesville, Va., "*Immunizations—Value Today and the Problems They Present*."

- 9:30 KENNETH M. BRINKHOUS, M.D., Prof. of Pathology and Chairman, University of North Carolina, "*Hemorrhagic Disorders*."
- 10:00 A.M. INTERMISSION—EXHIBIT VISITATION
- 10:30 JAMES L. A. ROTH, M.D., Ph.D., Dir., Institute of Gastroenterology, Presbyterian University of Pennsylvania Medical Center, Philadelphia, Pa., "*Toxic Megacolon Complicating Ulcerative Colitis*."
- 11:00 H. EARL GINN, M.D., Chief, Nephrology Division, Assoc. Prof., Medicine and Urology, Vanderbilt University Medical Center, Nashville, Tenn., "*Management of Chronic Renal Failure*."
- 11:30 NOBLE O. FOWLER, M.D., Prof. of Medicine, Cardiac Research Laboratory, University of Cincinnati, Cincinnati, Ohio, "*Clues to Cardiac Diagnosis From Inspection of the Patient*."

TUESDAY LUNCHEONS

Gastroenterology Symposium

- 12:30 P.M. to 4:00 P.M.—CONTINENTAL ROOM—READ HOUSE
- Speakers:*
FRANK MOODY, M.D., Birmingham, Ala.
JAMES A. ROTH, M.D., Philadelphia, Pa.
JOHN T. SESSIONS, M.D., Prof. of Medicine, Univ. of N. C. School of Medicine, Chapel Hill, N. C.
Moderator: TIM J. MANSON, M.D.

Medicine-Cardiology Symposium

- 12:30 P.M. to 4:00 P.M.—PARLOR C—READ HOUSE
- Speakers:*
NOBLE FOWLER, M.D., Cincinnati, Ohio
DWIGHT E. HARKEN, M.D., Clin. Prof. of Surg., Harvard Medical School, Boston, Mass.
Moderator: MAURICE RAWLINGS, M.D.

Artificial Kidney Symposium

- 12:30 P.M. to 4:00 P.M.—PARLOR E—READ HOUSE
- Speakers:*
H. EARL GINN, M.D., Nashville, Tenn.
WILLIAM C. WATERS, III, M.D., Assoc. Prof. of Medicine, Emory Univ. School of Medicine, Atlanta, Ga.
Moderator: JESSE L. WILLIAMS, M.D.

PEDIATRIC LUNCHEON

- 12:30 P.M. to 4:00 P.M.—PARLOR A-B—READ HOUSE
- Speaker:* WILLIAM G. THURMAN, M.D.
Moderator: HOSSEIN MASSOUD, M.D.
After lunch, session to be held at Children's Hospital

Annual Banquet—Monday evening, October 19, 1970, at 7:30 P.M., Silver Ballroom—Read House

Entertainment

Mr. Shearen Elebash—a humorist. He builds humor and extraordinary artistry that has universal appeal.

needs. Statistical information reflects needs beyond budgetary capability of the institution or employer to employ professionally and technically trained health personnel. Department of Labor funds to support allied health training programs cannot be used unless there is reasonable assurance that there will be full time employment for trainees upon completion of training programs supported by these funds.

Mr. Bruner further explains that the Department of Labor, which is responsible for development of labor market data, depends largely on the supply and demand experience of local employment offices in determining those occupational shortages in which training should be conducted under the Manpower Development and Training Act. The Tennessee Department of Employment Security is not conducting training in many acutely short technical health occupations because there is no demand on their offices for the specialties. Obviously, health institutions are not placing job orders with local employment offices for persons trained in health occupations.

It is essential that job orders for health manpower be filed with local employment offices if labor shortages in the health industry are to be determined correctly. Local employment offices are now staffed to process quickly requests from professional and allied health personnel. New methods are being introduced to speed up referrals and to broaden the list of available job applicants.

Vanderbilt University School of Medicine

The Andrew W. Mellon Foundation has authorized an appropriation of \$500,000 to the Vanderbilt University School of Medicine to aid in the construction of new classrooms and teaching laboratories. The new facilities are necessary to meet the demands of an increasing number of medical students.

At the meeting of the Vanderbilt Board of Trust in May, it was voted to expand the class of the Medical School in stages to 125, provided that adequate facilities, faculty and support becomes available to

accommodate this number of students.

Vanderbilt will enlarge the size of its Medical School class by 15 students this fall, in the first year of a five-year federal Physicians Augmentation Program. By 1974 the total enrollment of the Vanderbilt School of Medicine will be 300 compared to the current enrollment of 240.

The expansion of the Medical School's student body is part of Vanderbilt's national commitment to participate to a far greater extent in the training of more doctors and allied health personnel.

"With the generous gift of the Andrew W. Mellon Foundation, Vanderbilt will make greater progress in the development of its physical facilities to accommodate our doubling the size of our student body in the years to come," said Director of Medical Affairs Randolph Batson. "There is a critical health manpower shortage," he added. "The Andrew W. Mellon Foundation is helping to make it possible for Vanderbilt to fulfill its obligation to society by training a greater number of doctors and allied health personnel."

Dr. Horace E. Williams, associate professor of engineering mathematics of Vanderbilt University, and Dr. James H. Fleming, Jr., assistant clinical professor of plastic surgery in the Vanderbilt School of Medicine, have collaborated on a particular type of scar revision used in plastic surgery called the W-plasty.

Their work, presented to the Southeastern Society of Plastic Surgeons at the 1967 annual meeting in the Bahamas, has since influenced a number of plastic surgeons to understand and successfully employ the W-plasty in their clinical practice.

This method of scar revision takes its name from the running W excision that the surgeon makes upon the straight line scar. It is employed primarily to revise horizontal scars across the cheek. When healed, a rather dramatic improvement results, as documented by photographs taken from a number of cases in Fleming's private practice.

In 1965, Dr. Fleming was at the University of Pittsburgh and Dr. Williams was holding a Ford Foundation grant at the Carnegie-Mellon Institute, also in Pitts-

burgh. On the basis of a previous friendship, Fleming asked Williams for a mathematical explanation for the clinical improvement. Williams did a study of the skin tension forces which are applied to parts of a scar. He devised a formula with which he could calculate the percentage of reduction of skin tension forces which cause the scar to spread. Williams concluded that a sixty degree angle in the W-plasty is most desirable.

He further analysed other methods of scar revision such as the Z-plasty, the step incision, and the multiple curve incision. He could then demonstrate mathematically that the W-plasty was superior to these other methods of scar revision. His findings were affirmed in Dr. Fleming's clinical practice.

The collaboration of an engineer and a surgeon has made a definite contribution toward helping plastic surgeons to understand why the W-plasty is the most desirable method of revising horizontal cheek scars.

* * *

Dr. John Marcell Davis has recently come to Vanderbilt to direct the Clinical Unit of the Tennessee Neuropsychiatric Institute of Vanderbilt's Medical Center at Central State Hospital.

The Tennessee Neuropsychiatric Institute is the only one of its kind in the United States because it combines the efforts of a highly skilled basic science team working in close conjunction with a group of research psychiatrists at a large state mental institution and because it operates with joint sponsorship and support from federal, state, and private agencies.

Since the average hospitalized patient frequently receives as many as sixteen drugs, the field of psychopharmacology has increased in importance in the last few years. The potential hazards as well as benefits of multi-drug administration and the effect of drug combinations led the National Institute of Mental Health to become interested in the drug metabolism work already being done at Vanderbilt. The increased NIMH support has made possible the development of the Institute which has

been established at Central State Hospital in the Cooper Building.

The Institute provides a unique environment in which both basic and clinical research can be carried out on the organic causes and biochemical processes of mental illness and the development of effective treatments for mental illnesses.

The basic sciences unit has been in operation for five years under the direction of Dr. Allan Bass, Chairman of the Department of Pharmacology. Its support has come from an NIMH grant, the State of Tennessee, and Vanderbilt University.

Some of the most important pioneering studies have to do with drug metabolism and drug reactions. The rate at which an animal can metabolize a drug has a direct influence on the effectiveness of the drug. Also, one drug may block the metabolism or accelerate the metabolism of another, and thereby increase the possibility of either decreased effectiveness or toxic reactions.

Dr. Fridolin Sulser, Professor of Pharmacology and co-ordinator of the Basic Sciences Unit, and his colleagues have been studying a group of chemicals in the brain, called neurotransmitters. These are involved in not only behavior but in animals' pleasure and pain sensations. It is now thought that neurotransmitters are involved in the etiology of schizophrenia and depression, as well as narcotic, alcohol, and amphetamine abuse. This research unit has been particularly interested in actions of amphetamines and marijuana.

The Clinical Unit will begin to apply the findings of the basic science laboratory to human patients with the arrival of Dr. Davis. The Clinical Unit hopes to develop a more effective treatment of mental illnesses by close examination of the reasons for individual differences in response to various drug treatments. The patients will be closely observed for biochemical changes involved before and after therapy.

The doctors will study the lag periods of anti-depressants, the use of chlorpromazine in the treatment of schizophrenia, the pharmacology and treatment of amphetamine psychosis, treatment of hyperactive children, with special attention being given

to the role of neurotransmitters in mental illness.

The University of Tennessee Medical Units

Charles W. Gross, M.D., is the new chairman of the Department of Otolaryngology and Maxillofacial Surgery at the University of Tennessee Medical Units. He succeeds Dr. Sam H. Sanders who—up until his retirement on July 1—had headed the department for sixteen years. Dr. Sanders will continue teaching in the department with the title of clinical professor emeritus.

Dr. Gross came to Memphis in September, 1968, after teaching assignments at Harvard Medical School and the University of Cincinnati Medical School. He earned his M.D. degree at the University of Virginia Medical School, and did intern and residency work at Virginia and at Massachusetts Eye and Ear Infirmary.

Prior to his current appointment, he had headed the UT department's residency training program in addition to other faculty duties.

PERSONAL NEWS

Dr. A. Roy Tyrer, Jr., Memphis, was recently presented the Vocational Service Award by the Memphis Rotary Club. The Award was given for "outstanding achievement in his chosen profession" and this was the 12th year that it had been presented.

Dr. T. J. Francisco, Memphis, has been named State Medical Examiner by **Dr. Eugene Fowinkle**, Commissioner of State Department of Public Health. Dr. Francisco, formerly the Shelby County Medical Examiner, succeeds **Dr. Thomas Littlejohn**, who resigned on June 30. He plans to continue to live in Memphis and will direct the state program from there.

Dr. Amos Christie, Nashville, has been selected to receive the coveted Jacobi Award, given by the section on pediatrics of the American Medical Association. The award was created in tribute to Abraham Jacobi, called the founder of Pediatrics of America and as recipient of the award, Dr. Christie will deliver the Jacobi Award Address at the Pediatric Section Meeting of the American Medical Association Convention in June 1971. Dr. Christie was Chairman of the Vanderbilt Department of Pedi-

atrics for 25 years and now continues to teach and pursue his research interest.

Dr. Warren C. Ramer, Lexington, was named Chief of Staff at Lexington Hospital.

Dr. Roger K. White, Nashville, has been named Director of Psychiatric-Psychological service for the State Department of Corrections. Dr. White, formerly director of Forensic Psychiatry of the Department of Mental Health, will be a consultant to treatment teams at the state's penal institutions.

Dr. Robert D. Proffitt, Maryville, recently was appointed to the Southeastern Area Advisory Council of the American National Red Cross. Dr. Proffitt, a pediatrician, has served two years as Chapter Chairman of the Blount County Chapter Red Cross and as Chairman of Public Education of the East Tennessee Heart Association.

Dr. L. W. Diggs, Memphis, presented a paper on sickle cell anemia at the recent international Hematology Society Congress in Munich, Germany.

Dr. Donald S. LaFont is now associated in private practice with **Dr. B. C. Higgs** and **Dr. Jesse A. Miller, Jr.** at the Pediatric Clinic in Jackson.

Dr. Alexander Rhoton, Chattanooga, is now associated with **Dr. O. H. Clements** in the practice of medicine and surgery.

Dr. Charles A. Trahern, Clarksville, has announced the association of **Dr. James R. Milam** for the practice of Internal Medicine and Medical Neurology.

Dr. H. William Scott, Jr., Nashville, is the new President of the Society for Surgery of the Alimentary Tract. Dr. Scott is also President of the Halsted Society, Treasurer of the American College of Surgeons, and Secretary of the International Society of Surgery (North American Chapter).

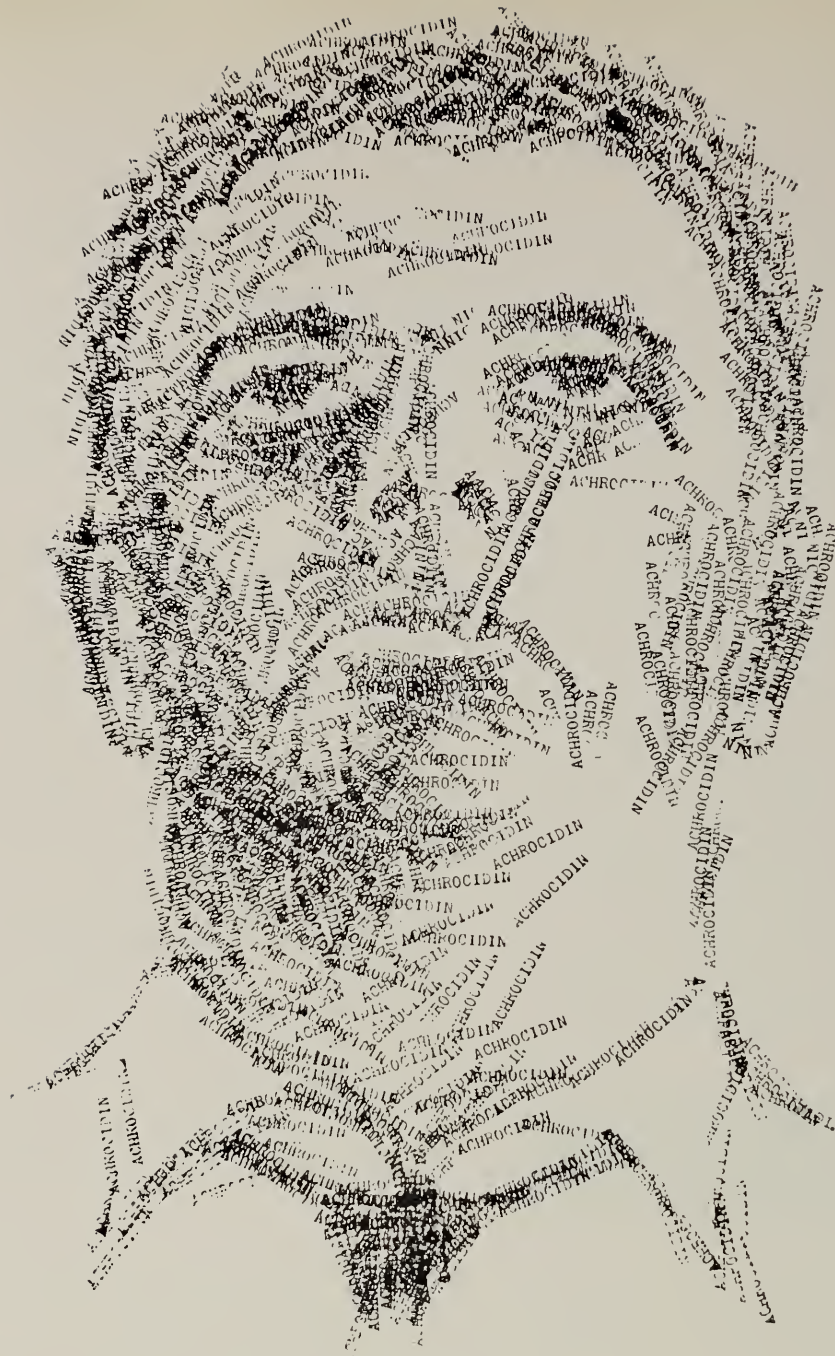
Dr. Howard Foreman, Nashville, is a new member of the Tennessee Board of Medical Examiners. Other members of the Board include Drs. Spencer Bell, Knoxville; William Owen, Pulaski; Harold Butler, Union City; and Tinnin Martin, Memphis.

ANNOUNCEMENTS

Calendar of Meetings 1970 State

Sept. 25-26

American College of Physicians
(Tennessee Regional) Ramada
Inn, Knoxville



Achrocidin[®] Tablets and Syrup

Tetracycline HCl—Antihistamine—Analgesic Compound

Each tablet contains: ACHROMYCIN[®] Tetracycline HCl 125 mg.; Phenacetin 120 mg.; Caffeine 30 mg.; Salicylamide 150 mg.; Chlorothen Citrate 25 mg.

ACHROCIDIN Tetracycline HCl—Antihistamine—Analgesic Compound Tablets and Syrup are recommended for the treatment of tetracycline-sensitive bacterial infection which may complicate vasomotor rhinitis, sinusitis and other allergic diseases of the upper respiratory tract, and for the concomitant symptomatic relief of headache and nasal congestion. For children and elderly patients you may prefer caffeine-free ACHROCIDIN Syrup. Each 5 cc contains: ACHROMYCIN Tetracycline equivalent to Tetracycline HCl 125 mg.; Phenacetin 120 mg.; Salicylamide 150 mg.; Ascorbic Acid (C) 25 mg.; Pyrilamine Maleate 15 mg.

Contraindications: Hypersensitivity to any component.

Warning: In renal impairment, since liver toxicity is possible, lower doses are indicated; during prolonged therapy consider serum level determinations. Photodynamic reaction to sunlight may occur in hypersensitive persons. Photosensitive individuals should avoid exposure; discontinue treatment if skin discomfort occurs.

Precautions: Drowsiness, anorexia, slight gastric distress can occur. In excessive drowsiness, consider longer dosage intervals. Persons

on full dosage should not operate vehicles. Nonsusceptible organisms may overgrow; treat superinfection appropriately. Treat beta-hemolytic streptococcal infections at least 10 days to help prevent rheumatic fever or acute glomerulonephritis. Tetracycline may form a stable calcium complex in bone-forming tissue and may cause dental staining during tooth development (last half of pregnancy, neonatal period, infancy, early childhood).

Adverse Reactions: *Gastrointestinal*—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. *Skin*—maculo-

popular and erythematous rashes; exfoliative dermatitis; photosensitivity; onycholysis, nail discoloration. *Kidney*—dose-related rise in BUN. *Hypersensitivity reactions*—urticaria, angioneurotic edema, anaphylaxis. *Intracranial*—bulging fontanels in young infants. *Teeth*—yellow-brown staining; enamel hypoplasia. *Blood*—anemia, thrombocytopenic purpura, neutropenia, eosinophilia. *Liver*—cholestasis at high dosage.

Upon adverse reaction, stop medication and treat appropriately.



LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York 10965

- Oct. 19-20 Tennessee Valley Medical Assembly, 18th Annual, Read House, Chattanooga
- Nov. 4-6 Tennessee Academy of General Practice, 22nd Annual Meeting and Scientific Assembly, Civic Auditorium, Gatlinburg

National

- Sept. 25-Oct. 1 American Academy of General Practice, San Francisco
- Sept. 30-Oct. 1 AMA Congress on Occupational Health, Century Plaza Hotel, Los Angeles
- Oct. 5-9 American Academy of Ophthalmology and Otolaryngology, International Hotel, Las Vegas, Nevada
- Oct. 12-16 American College of Surgeons, Conrad Hilton Hotel, Chicago
- Oct. 17-22 American Academy of Pediatrics, San Francisco Hilton, San Francisco
- Oct. 25-29 American Association of Blood Banks, San Francisco Hilton, San Francisco
- Oct. 25-30 American College of Chest Physicians, Century Plaza Hotel, Los Angeles
- Oct. 29-Nov. 2 Association of American Medical Colleges, Biltmore Hotel, Los Angeles
- Nov. 10-17 American Heart Association, Shelburne-Dennis Hotel, Atlantic City, New Jersey
- Nov. 16-19 Southern Medical Association, 64th Annual Meeting, Dallas Memorial Auditorium, Dallas
- Nov. 29-Dec. 2 American Medical Association, (Clinical Convention), Boston
- Dec. 5-10 American Academy of Dermatology, Palmer House, Chicago
- Dec. 9-12 American Academy of Cerebral Palsy, Shamrock-Hilton, Houston

UT Continuing Education Courses

The following is a list of continuing education courses scheduled to be offered by the University of Tennessee College of Medicine from September 28, 1970 through August 31, 1971:

1970

- Sept. 28-Oct. 2 "Communication Skills and Personal Growth," Paris Landing Inn, Buchanan
- Oct. 14-15 "Seminar on Medicine and Religion-Crisis of Control," The University of Tennessee College of Medicine, Memphis

- Oct. 21-23 "Radiology," The University of Tennessee College of Medicine, Memphis
- Oct. 28-30 "Anesthesia for the General Practitioner," The University of Tennessee College of Medicine, Memphis
- Nov. 20 "Symposium on Mental Disorders," The University of Tennessee Memorial Research Center and Hospital, Knoxville

1971

- Feb. 8-12 "Review Course for General Practitioners," The University of Tennessee College of Medicine, Memphis
- Feb. 11 "Dermatology," Henry Horton State Park, Chapel Hill
- March 1-5 "Fundamentals of Otolaryngologic Allergy," The University of Tennessee College of Medicine, Memphis
- April 7-9 "Obstetrics and Gynecology," The University of Tennessee College of Medicine, Memphis
- April 26-27 "Psychiatric Interview and Short Term Psychotherapy," The University of Tennessee College of Medicine, Memphis
- May 5-8 "Clinical Electrocardiography," Henry Horton State Park, Chapel Hill
- May 24-28 "Intensive Review of the Science of Anesthesiology," The University of Tennessee College of Medicine, Memphis
- June 3-5 "Medical Aspects of Sports," The University of Tennessee College of Medicine, Memphis

American Board of Family Practice Announces Second Exam

The American Board of Family Practice announces that it will give its second Examination for Certification in various centers throughout the United States. The examination will be held over a two-day period on February 27-28, 1971. Information regarding the examination and eligibility for the examination can be obtained by writing:

Nicholas J. Pisacano, M.D.,
Secretary-Treasurer
American Board of Family Practice, Inc.
University of Kentucky Medical Center
Annex #2, Room 229
Lexington, Kentucky 40506

Deadline for receiving completed applications in the Board office is November 1, 1970.

Cancer Films Available

The following is a list of new films which have been produced by the American Cancer Society and are now available on request:

1. Cancer Chemotherapy (Solid Tumors)
2. Lung Cancer: Early Diagnosis and Management
3. The Pharmacist and Cancer
4. Principles of Teaching Speech After Laryngectomy
5. Thyroid Cancer: Diagnosis and Treatment

In addition to the 16mm films, an 8mm Fairchild Cartridge projector and 8mm cartridge films are available for loan upon request to the American Cancer Society, Tennessee Division, Inc., 2519 White Avenue, Nashville, Tennessee. The 8mm cartridge films available include:

1. Cancer in Children
2. Cancer of the Skin
3. Cancer of the Stomach
4. The Diagnosis and Management of Cancer of the Colon and Rectum
5. The Diagnosis and Treatment of Cancer of the Prostate
6. Cancer Chemotherapy (Solid Tumors)
7. Lung Cancer: Early Diagnosis and Management
8. Early Diagnosis and Management of Breast Cancer
9. Proctosigmoidoscopy: A Part of the Physical Examination
10. Uterine Cancer: Diagnosis and Management

Internist Plan Scientific Meeting

Specialists in internal medicine in Tennessee are scheduling a scientific meeting in Knoxville, Tennessee for September 25-26. The meeting

under the sponsorship of the American College of Physicians (ACP), will be held at the Ramada Inn.

The session is one of 37 regional scientific-educational meetings the ACP is planning for the 1970-71 academic year. Held throughout the United States and Canada, the meetings help the College's 16,000 members keep abreast of developments in the basic sciences and clinical medicine. The College has been holding these regional meetings annually since 1930.

Hall S. Tackett, M.D., Memphis, Tennessee, ACP Governor for Tennessee, is in charge of the meeting. Dr. Tackett is Clinical Professor of Medicine at the University of Tennessee College of Medicine and a member of the active attending staff at the Baptist Memorial Hospital and the City of Memphis Hospital.

University of Kentucky Postgraduate Courses Announced

The University of Kentucky Medical Center will hold the following two programs in October:

Oct. 17-18 "Clinical Demonstration of Common Skin Problems," including a "Live" clinic and round table discussions with the faculty. Fee: \$30.

Oct. 23-24 "Listening, Deciding, Doing," a workshop on cardiac auscultation, diagnosis and therapy. Fee: \$60.

Inquiries regarding these programs should be directed to Frank R. Lemon, M.D., Associate Dean, Continuing Education, College of Medicine, University of Kentucky, Lexington, Kentucky 40506.

HEADQUARTERS ADDITION NEARS COMPLETION



A new addition to the TMA headquarters building is expected to be completed and ready for occupancy by December 1st. The construction will provide additional offices for the TMA administrative staff and the Nashville Academy of Medicine, plus storage space and a much needed enlarged conference room. Jack Ballentine, TMA Executive Director, put on his hard hat and helped with the initial excavation for the basement storage area. The new addition matches the bricks of the present structure and when completed the headquarters building will front 115 feet on Louise Avenue.

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MEDICREDIT

A Proposal To Provide A Voluntary Health Care Program For The Nation*By* RUSSELL B. ROTH, M.D.*

I am pleased to present the comments of the American Medical Association with respect to proposals to amend the various titles of the Social Security Act. As the committee knows, our interest lies in many of the topics before you. However, I plan to speak about only one of the subjects which concerns this committee during the course of these hearings to ask for your careful consideration of the AMA's proposal to provide a health care program for the nation.

It has become clear to all of us that even this country, with all its wealth, has financial limits as to what it can undertake. Representing this country's physicians as we do, the AMA is on record in its belief that it is the basic right of every citizen to have available to him good health care. We believe that, without good health, it is impossible for any citizen to lead a full, productive and meaningful life.

Today, we want to put before this committee a plan which is universal in scope, voluntary in nature and realistic in terms of total program costs. This proposed program is one that the AMA calls "Medicredit." It is a flexible program which will assure each individual and family—no matter how limited their financial resources—adequate health protection.

For those in lower income categories, this protection is theirs without expense or contribution on their part. For those with moderate and higher levels of income, Medicredit provides a system of cash incentives to encourage them to protect them-

selves against major health care costs. Medicredit would not replace Medicare—which as you know provides health care protection for those 65 and over. Medicare would remain as it is. Medicredit would, however, do away with the need for Medicaid.

Our proposal is the result of years of careful study of our existing mechanisms for delivering and financing health care, coupled with our close study of the Federal government's ability to fund a universal health insurance program.

Tax Credit

Now let me explain how Medicredit would work. It would give to persons who have purchased comprehensive health insurance the option of receiving a tax credit on their annual Federal income tax return, a credit based on their tax liability. That is, taxpayers could take as a credit against the amount of income tax owed to the Federal government, all or part of his personal cost for comprehensive health coverage. Persons or families with lower tax liability (usually reflecting lower income or more dependents and allowable expenses) would receive a greater tax credit. And those families in the lower 30% income range, would, without cost to them, receive a certificate enabling them to purchase health coverage from qualified companies or plans.

Mr. Chairman and Members of the Committee, the AMA proposal. Permit me in the time allotted to describe our proposal in just a little more detail so that your committee may have sufficient information before it.

Mr. Chairman and Members of the Committee, I am Russell B. Roth, a physician in private practice, specializing in urology, in Erie, Pennsylvania. I am Speaker of the American Medical Association's House of Delegates. Prior to election to that office, I was Chairman and a member of the AMA Council on Medical Service. It was while

*Russell B. Roth, M.D. of Erie, Pennsylvania, Speaker, House of Delegates of the American Medical Association.

Presented in behalf of the American Medical Association by Doctor Roth before the Committee on Ways and Means of the United States House of Representatives, November 3, 1969.

serving in that capacity that I developed a special interest in the health care needs of all our citizens and in the available mechanisms for providing quality health care to all persons. Incidentally, that interest also led to my participation, along with other physicians of the AMA, in committees and task forces formed by the Secretary of Health, Education, and Welfare immediately after the adoption of the Medicare law for the purpose of speedily and effectively implementing the Medicare program. These committees worked diligently to get the program off the ground and into operation, and much of the early success of Medicare has to be attributed to their efforts.

Seated with me is Mr. Bernard P. Harrison, an attorney and Director of our Legislative Department, who has appeared before this committee on other occasions with other witnesses for the Association.

It is important to recognize that our plan envisions improvements, extensions, and refinements of what we have already evolved in this country, rather than the devising of radical replacements. The shortcomings of our system, whatever they may be, stem from the rapid, relatively uncontrolled growth of medical technology, the staggering increase in demand, and American compulsion to experiment, innovate, and improvise in an atmosphere of freedom of enterprise and the competition of the marketplace. To a great degree our difficulties stem from the successes of our health care system rather than from its failures.

The financial mechanisms which have been developed in this country to meet the costs of medical care have been successful and progressive. We believe that, in our future, there continues to be a proper place for private insurance, for voluntary prepayment plans, for protection against health care costs through prepaid comprehensive group practice, and for other innovative approaches. They all help to mobilize the available resources of the private sector of our economy to meet the need of our nation for health care services.

Voluntary Basis

In consequence of these considerations, the American Medical Association has

sought to devise a financing mechanism which, insofar as possible, would meet the needs of the public on the voluntary basis, with maximum incentives for participation. Ours is not a plan developed in the last few weeks as a response to the Chairman's call for these hearings. We have been with this concept for years and have spent months in the development of a program to be offered to the Congress, one which would realistically meet the needs of our people.

Our plan recognizes that the population may be divided into three fairly well defined categories with respect to ability to purchase comprehensive health insurance.

There are those with essentially no capacity to pay;

There are those with a capacity to pay a portion of the cost; and

There are those with a reasonable full capacity to pay.

For those who have no capacity to pay for health insurance, the government would pay for basic comprehensive health coverage by providing to the individual or head of the family a certificate which may be used for the purchase of a two-part package of insurance—Part I, hospital care, and Part II, physicians' services, wherever rendered. For those with a low tax liability (say \$300 or less) a similar certificate good for the purchase of comprehensive health insurance would be provided. For those with tax liability above that amount, and please note we are speaking of tax *liability* and not taxable income, income tax credits would be given on showing of expenditures for qualified health care plans. The amount of the credit would be based on the tax liability of the person or family so that, for example, a taxpayer with a \$500 tax liability might receive 70 per cent of the annual premium cost as a credit against his tax liability, and a family with \$1200 tax liability might receive 20 per cent of the premium expense as a credit against their tax liability.

In order to receive the credit the taxpayer would need to show that he has purchased a qualified insurance or prepayment plan. Such a qualified plan would be one where both the benefit package and

the carrier or group have been approved by the appropriate state agency. Guidelines would be established to assist the state agency in this qualifying program.

To provide the guidelines necessary to carry out the purposes of the bill, and to plan and develop programs for maintaining the quality of medical care and the financial resources and effective utilization of available health manpower and facilities, we propose the establishment of a Health Insurance Advisory Board. This Board, which would be chaired by the Secretary of Health, Education, and Welfare and include the Commissioner of Internal Revenue and public members, would review the effectiveness of the program and file annual reports with the President and the Congress.

Basic Benefits

You will find that the AMA bill requires as basic benefits under any qualified plan, 60 days of inpatient hospital services, including maternity service; all emergency room and outpatient service provided in the hospital; and all medical services provided by a doctor of medicine or a doctor of osteopathy, whether performed in the hospital, home, office or elsewhere. Supplemental benefits may also be provided and payment for such benefits would be eligible for tax credit, or in the case of the lower income persons, for the certificate which entitles them to purchase the qualified plan of their choice.

Mr. Chairman, most advocates of change in our health care system support the use of the insurance mechanism as an essential part of any program. Without the Blue Shield, Blue Cross and commercial carriers under contract with the Social Security Administration, the medicare program would have been an administrative shambles.

We urged then, and still do now, even further involvement of this private sector in the medicare program. Similarly, we believe that any new program which hopes for success in the delivery of quality health

care at reasonable costs, must call upon the insurance industry and prepayment plans to play a significant independent and competitive role.

According to figures of the Health Insurance Association of America, 89 per cent of our civilian, non-institutional population under age 65, have some form of health insurance protection. The concept of protecting against health care expenses is one which is approved and accepted by almost all our people. The difficulty which we experience today lies in the rising costs of health care and the corresponding rising costs of plans designed to protect against such expenses.

There are numerous organizations and individuals who are today seeking the answers to the many faceted problems of health manpower, shortages of care in certain urban pockets, and the rising cost of health care. We believe that the approach we offer, in the immediate and long range view, is the right way to meet the problem of financing health care costs. It does away with the need for a Medicaid program for the low income group and offers in its place a system which brings the private competitive factor into the picture, and places all citizens truly in the mainstream of health care. For the higher income individuals and families, it offers realistic incentives to purchase comprehensive health care coverage. It utilizes to the fullest extent the private carriers and plans and allows for the marketplace to play an active part in maintaining cost control and insuring quality programs, as it has done for so many years in this country's history. And Mediscredit would be relatively easy to manage and the administrative costs to the government would be less than that of other proposals now being advanced.

We believe that Mediscredit merits your careful consideration and we stand ready to do our best to provide whatever information the committee may require. (*Reprinted from the Rhode Island Medical Journal.*)



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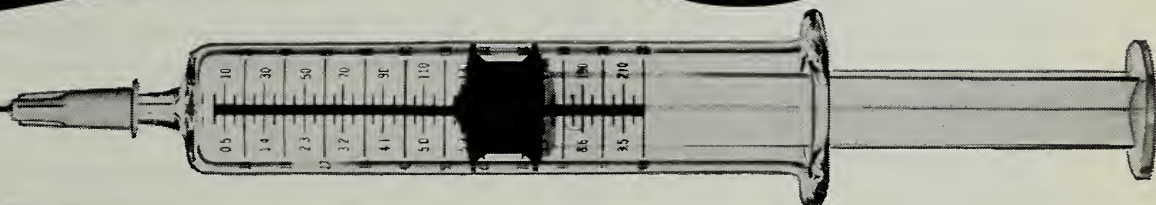
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Instructions to Contributors

Manuscripts submitted for consideration for publication in the JOURNAL OF THE TENNESSEE MEDICAL ASSOCIATION should be addressed to the Editor, Dr. R. H. Kampmeier, Vanderbilt University Hospital, Nashville, Tennessee 37203.

Manuscripts must be typewritten on one side of letter-weight paper. Either double or triple spacing and wide margins must be provided to facilitate editing which will be legible for the printer.

Bibliographic references should not exceed twenty in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to the style used in the American Medical Association publications, as—Alais, F. G.: What Is Known About it, J. Tennessee M. A., 35:132, 1950.

Illustrations should be mounted on white cardboard, numbered and identified with the author's name. The editor will determine the number, if any, of illustrations to be used with the Journal assuming the cost of engravings and cuts up to \$25. Engraving cost for illustrations in excess of \$25 will be billed to the author.

If reprints are wanted, the desired number should be indicated in the letter accompanying the manuscript. No reprints are provided free and a reprint cost schedule will be forwarded upon request.

The authors, in reporting two cases, review the clinical manifestations and treatment of a highly malignant lesion.

Fibrosarcoma of the Nose And Paranasal Sinuses^{*}

DONALD RICHARDSON, M.D. and THOMAS A. MAGUDA, M.D.
Memphis, Tenn.

Martin¹ reported that malignant tumors of the paranasal sinuses comprise 0.2% of all cancer and 3% of cancer of the upper respiratory and alimentary tracts. Malignant tumors of the nose and paranasal sinuses are more frequently of epidermal origin. Some very early reports stated that sarcoma was several times more common. This was perhaps due to faulty diagnosis of that time. New², in 1935 reported 91 tumors of the maxillary antrum; of these 22% were sarcoma. Eggston and Wolfe³, over a period of 10 years from 1930 to 1940, reported 77 cases of cancer of the nose and paranasal sinuses of which 31% were sarcoma. Lewis,⁴ in a recent report reviewing 514 cases of cancer of the nasal cavity and sinuses seen at Memorial Hospital over a 20 year period, found a 10% incidence of sarcoma. He reported 52 cases of sarcoma of which 40 were lymphosarcoma and 12 were sarcomas of soft part, boney, or cartilaginous origin. Cantril and associates⁵ reported a series of 45 tumors of the maxillary antrum among which were 2 instances of sarcoma; one of these was a fibrosarcoma.

According to Lewis,⁴ sarcoma of soft parts and chondrosarcoma have a high incidence of related nasal polyposis and sinus disease. He reported that in 10 of 12 cases there had been previous nasal polypectomies or sinus surgery. Larsson and Maartensson⁶ reported 330 cases of cancer of the nose and paranasal sinuses of which 48 had histories of

repeated surgical operations for sinusitis and nasal polyps. Sisson and associates⁷ report, "Malignant disease of the sinuses may be the result of a peculiar metaplasia associated with a repair of epithelium destroyed by episodes of chronic sinusitis." Of the 2 cases of fibrosarcoma reported in this paper, one had a previous Caldwell-Luc procedure and the other had had removal of nasal polyps. Gross and Montgomery⁸ reported an instance of chondrosarcoma in a 19-year-old man who had a Caldwell-Luc procedure 12 years previously for fibrous dysplasia of the antrum.

Clinical Findings

Sarcoma of this area may occur at any age. It is not limited in occurrence to the older age group. It occurs as commonly in females as in males.

The symptoms of sarcoma of the nose and paranasal sinuses are the same as for carcinoma of this area. The signs and symptoms are based on the anatomic extent of the tumor rather than on tumor type. The more common symptoms are nasal obstruction, discharge, epistaxis, and local swelling in the cheek. Unilateral facial pain is a frequent symptom, as well as alteration of the palate or alveolar ridge, toothache unrelieved by extraction, failure of healing of a tooth socket, visual disturbances, trismus, facial numbness, hypacusis, and fullness in the ear.

Diagnosis of advanced tumors of the maxilla usually is not difficult, through, diagnosis of early lesions confined to the maxillary antrum offers a challenge. In either event thorough radiographic examination is

^{*}From the Veterans Administration Hospital, Surgical Service, Otolaryngology Section, and the University of Tennessee College of Medicine, Department of Otolaryngology, Memphis, Tenn.

of the greatest importance. The radiographic findings may be the same as those for inflammatory conditions; however, the demonstration of bone erosion or a mass is more suggestive of tumor. Bone destruction has been reported as being present in a large percentage of sarcomas of the soft parts. Planograms or panoramic dental x-rays may be helpful in demonstrating bone destruction. Shramek and Rappaport⁹ suggest that the panoramic dental x-ray might be a useful screening device in the detection of early tumors of the maxilla. X-rays, in addition to their diagnostic value, are also beneficial in preoperative evaluation of surgical extension.

Sisson and collaborators⁷ suggest that in the face of persistent symptoms, and particularly with a past history of sinusitis, it may be necessary to resort to an exploratory antrotomy for diagnosis.

Fibrosarcoma may occur in any fibrous tissue anywhere. It may appear smooth and firm and be painless except when there is associated inflammation such as sinusitis secondary to sinus blockage.

Microscopically, fibrosarcoma appears as spindle shaped cells separated by collagen and arranged in bundles which have been described as interlacing in a characteristic "herringbone" pattern. They must be distinguished from a spindle variant of squamous cell carcinoma.

Clinically, fibrosarcoma is characterized by a high incidence of local recurrence. Two series report a 50% or greater incidence.

Fibrosarcoma of the nose and paranasal sinuses, not unlike sarcoma in other locations and of other types, has a high incidence of vascular borne metastasis and a lesser incidence of lymphogenous spread. Pulmonary metastases occur not uncommonly, and may occur late or early in the course of the disease.

It is generally agreed that at best fibrosarcoma is only poorly responsive to radiation therapy, and to administer preoperative radiotherapy is to delay definitive surgery and possibly diminish chances of a surgical cure. Operation upon the nasal cavity and adjacent sinuses is made more difficult and the chances of surgical cure are

lessened by the close proximity of vital structures. However, surgery remains the primary treatment of choice and, as in all cancer surgery, the line of excision should include a wide margin of normal tissue. Close adherence to this rule will in most cases require radical maxillary surgery including subtotal resection of the maxilla, orbital contents, and ethmoid and sphenoid sinuses. This procedure has been well described by numerous authors.

Case Reports

Case 1. A 56-year-old white man came to the Veterans Administration Hospital in January, 1951. He gave a history of multiple nasal surgical procedures for removal of obstructing nasal polyps starting at age 16. A bilateral nasal polypectomy was done at that admission. The pathologic report was of granulation tissue and nasal polyp.

He had recurrence of nasal obstruction 8 months later. Bilateral Caldwell-Luc's, polypectomy, and ethmoidectomy were performed. Microscopic examination of this specimen revealed fibrosarcoma.

During the next 4 years he had 5 local surgical procedures for removal of recurrent fibrosarcoma. An attempt at palliation, giving 2340 R in 15 days, produced no evidence of tumor regression. He died 4 years following the initial diagnosis with lobular pneumonia and hemorrhage from fibrosarcoma, with local extension into the paranasal sinuses.

Case 2. A 56-year-old Negro man presented on Jan. 13, 1969, with swelling of the left cheek which had been present for 6 to 8 months. He gave a past history of left sided Caldwell-Luc 2 years previously for chronic sinusitis. Sinus x-rays revealed opacification of the left antrum. Irrigation of the antrum returned a small amount of purulent material.

Progression of swelling over the antrum, in the face of antibiotic therapy, prompted exploration of the antrum through the oral Caldwell-Luc incision. Biopsy of antral contents revealed fibrosarcoma. The patient was advised that he should have radical resection of the left antrum, ethmoids, and orbital exenteration. The patient would not submit to excision of the orbit, so a partial left maxillectomy was done preserving the orbit. He is now 10 months postoperatively, without evidence of local recurrence or metastasis.

Discussion

Both of the above patients had a history of previous operations for nasal polyps or chronic sinusitis. This is consistent with other reports in the literature of the frequency of nasal or sinus surgery prior to a

delayed diagnosis of sarcoma.

Early signs and symptoms may be the same as for acute or chronic sinusitis. Bone erosion may be demonstrated radiographically in a moderate number of these cases. Panoramic dental x-ray, if available, may be of help in demonstrating bone destruction. Biopsy by way of the inferior meatus may prevent the necessity of later excising a biopsy tract in the canine fossa area if a Caldwell-Luc approach is used. An exploratory Caldwell-Luc may be necessary to establish the diagnosis in some cases, and should be done if there are persistent symptoms and a reasonable degree of suspicion.

Fibrosarcoma is generally radioresistant and the treatment of choice is subtotal maxillectomy including the ethmoid sinuses, sphenoid sinus, and orbital contents. There is a high incidence of local recurrence. Metastasis is usually blood borne to the lungs, but may occur to the cervical lymph nodes, and when present with a resectable lesion would indicate the inclusion of a radical neck dissection in the patient's therapy. Irradiation should be reserved for palliation in nonresectable lesions.

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The author offers a comprehensive review of the pathogenesis, diagnosis and management of one of the most common diseases encountered in family practice as well as in industry.

Contact Dermatitis*

VONNIE A. HALL, M.D., Memphis, Tenn.

Contact dermatitis, a relatively common skin condition, is the inflammatory reaction initiated by contact of the skin with an external agent.¹ The exposure may be to a primary irritant or an allergen to which a person is specifically sensitized.

A *primary irritant* incites an inflammatory response to any skin when exposure has been in sufficient strength over an adequate period of time. Examples are strong acids, alkalis, certain solvents, and detergents. Disabilities produced by these agents are well known to the individual and industry alike, consequently, safety measures usually are rigidly observed.

Allergic reactions with which we are concerned are by far the most difficult to identify and manage. In a private dermatologic clinic we have found about 10% of the patients have confirmed or suspected allergic reactions. Included in this percentage are patients referred by physicians having industrial practices.

Since statistical data are not available, it is impossible to determine the incidence of industrial dermatitis. Reporting procedures to state health or labor departments are not regularly followed either by industry or insurance companies. In California, industrial dermatitis is recorded as the most prevalent occupational disease². In my opinion, this is not true in our area. Permanent disability is rarely recorded, but loss of time and medical attention are expensive both to the industrial concerns and insurance companies. Along with the growth in the power of unions and the increased tendency of the laborer to demand compensation for physical disabilities, there has been a corresponding increase in patients seeking medical advice, and this can be expected to continue. A few people,

unhappy in their work, seek every excuse to secure financial assistance and will persist in contentions that the skin eruption is directly related to their occupation. Usually legal assistance is available to secure this end. When there is definite knowledge that any skin condition has no relation to occupation, much controversy can be avoided by telling the patient at an early date. We as physicians, and even the insurance carriers, will at times make concessions simply to avoid involvement in court.

Certain factors influence the development of contact dermatitis. For example, the person with an extremely dry skin or one with a mild ichthyosis are particularly vulnerable, and fair skins seem more susceptible, especially where light sensitivity is a complicating factor. Other contributing facts are lack of cleanliness in personal hygiene and clothing, excessive sweating, and work directly involving friction and irritation due to fine metal particles. Though it is not generally conceded that patients with an atopic background are more susceptible, it appears to me that they are more prone to skin reactions. For example, the sensitivity of a patient with atopic eczema to nickel is a very frequent finding suggestive of multiple sensitization.

Common Allergens

Any one of the numerous agents which we handle daily is capable of producing an inflammatory reaction of the skin. The character varies from day to day due to changes in manufacturing processes. The elimination of certain chemical compounds and the addition of new ones result in an ever changing dermatologic picture.

Some of the most common offenders are plants, nickel, rubber, dyes, chromates, and medications. Of the plants, poison ivy and sumac are by far the most frequent; but similar though usually milder eruptions can be produced by the fig, bulbs of various

*Read at the meeting of the Tennessee Academy of Preventive Medicine and Public Health and the Tennessee Industrial Medical Association, April 9, 1970, Memphis, Tenn.

kinds, verbena, clematis, and others. Nickel and rubber are everywhere and we are in contact with them daily, both at home and in industry. Ear lobe dermatitis, eczematous reactions under the garter belt, the watch band, the bra and girdle, and on the hands, forearms, and faces of the rubber worker are sites where inflammatory changes most often occur. Dermatitis from dyes is seen on the scalp from various hair preparations, in the axilla from fabrics, and on the feet from shoes, while the chromates act as the allergen to the painter, the cement worker, and the leather industry.

The numerous medical preparations which are available to the individual patient for local application produce their fair share of cases of contact dermatitis. By prescribing additional ones, we as physicians often add to this list.

In the study of contact dermatitis it is well to remember that any substance or combination thereof can be the allergen, any part of the skin or mucous membranes can be involved and any individual patient may react differently from time to time.

Clinical Features

The *primary eruption* begins first at the point of contact with the causative agent. Itching is an early symptom, usually intense, and may precede any inflammatory changes. If pruritis is absent during any stage, most likely one is not dealing with a contact dermatitis. The onset is usually rapid, within a few, to as many as 48 hours after exposure, and varies from a mild erythema to vesiculation, exudation, edema, crusting, and in severe cases, purpuric changes.

In *chronic stages* or after repeated outbreaks thickening of the skin with fissuring and hyperpigmentation are present. Once the reaction occurs the skin becomes more susceptible to other contacts, and infection appears early in the excoriated skin. It should be kept in mind that many patients are prone to develop eczema of a mixed variety frequently giving an entirely different clinical picture. This condition may be seen when a contact dermatitis develops on a seborrheic skin or is superimposed on atopic eczema. Difficulty may arise in dif-

ferentiating an allergic reaction of the skin from nummular eczema, but the latter usually presents typical coin-sized, raised lesions with well defined vesicular borders, and not the diffuse redness of an allergic condition. Atopic eczema may at times resemble contact dermatitis but a history which fails to reveal a sudden onset, and the tendency of the eczema to chronicity and its association with other allergies, such as asthma and hay fever, are helpful hints.

When a contact dermatitis is suspected there are several investigative points that may be helpful in reaching a solution.

It was mentioned earlier that the initial reaction occurs at the point of contact. An example of the importance of determining this primary site can be illustrated by the man who becomes sensitized to matches. The initial reaction may occur first beneath the shirt pocket where the matches are carried and may persist here for months. He seeks medical aid only when the eruption has become wide spread. Identification of the causative agent is difficult unless a detailed history elicits the primary site. Self medication may lead to generalized involvement of what was once a localized reaction, however, the primary site again should correspond to the original exposure to the contactant.

Occupation is one of the most important facts in determining the precipitating agent. The housewife in her daily routine handles numerous allergens, some of the more common being detergents, various cleaners, floor wax, furniture polish, dyes, metals, rubber materials, plastics, plants, and many types of perfumes and cosmetics, to mention only a few. She is by far the most frequent patient seen with contact dermatitis, and likewise the most difficult in which the causative agent can be demonstrated. The location of the eruption, and the history of any change in wearing apparel or the handling of any new agents in the home often will give the clues. In this instance, a detailed history is of utmost value. Fewer contacts are experienced in occupational dermatitis, and it is usually easier to determine what the exposure has been, in what concentration, and if there has been a recent change in the chemical

compounds used. The course of the disease should be closely observed, that is, whether there is any improvement on week-ends or other absences from work, and most important, whether or not there is an exacerbation on return to work. If the eruption is bilateral and symmetrical, a good clue is provided suggesting that it is contact in origin. Examples are involvement of the feet in the sensitization to glue, foam rubber, or dye; and, the reactions to eye glasses, earrings, metal fasteners, perfumes, and dyes in garments.

Standard testing kits have not proved to be satisfactory, as testing should be individualized using material from the patient's own environment. Immediate application of any suspected agent can be made, under hypoallergenic tape, using care to select a noninvolved area of skin. Tests should be left in place from 24 to 48 hours before being read. Delayed reactions do occur, and the patient should be advised of this possibility. It also should be remembered that false negatives may occur if systemic corticosteroids are being employed in treatment. Patch testing when done properly yields valuable information, and physicians having industrial practices might find it worth while to establish a set which relates to the possible allergens encountered by workers in the industry. In this connection, it would be advisable to seek assistance from a qualified chemist.

Management

Obviously, the most successful method of management in contact dermatitis is the removal of the patient from contact with the allergen. This is especially true in occupational dermatitis unless suitable protective measures can be employed. Barrier creams, protective clothing, personal cleanliness and clean uniforms, proper ventilation, and an environment which reduces sweating often will aid in preventing recurrences.³ (For those who are interested in prevention of

occupational dermatitis, I recommend a review of the original articles appearing in *Cutis*, Vol. III, No. 5, 1967, and Vol. V, No. 2 (1969). The nonindustrial worker can usually find substitutes for the offending agent. As to therapy, steroids in the form of lotions, creams, and ointments are effective in the mild localized eruptions, while in generalized and severely involved cases rapid clearing results from the systemic use of corticosteroids. Antihistamines are used with a varying degree of response, usually disappointing. Shake lotions and soothing baths, such as starch and Aveno, can be employed to relieve the pruritis. Soaps, mercuric compounds, tars, neomycin, and preparations containing benzocaine or similar anesthetics should be avoided, since these often act as allergens. Secondary infection, which is frequent, is best managed by wet dressings, such as boric acid, and by systemic antibiotic therapy rather than by local application.

Conclusion

Contact dermatitis is such a common finding that every patient presenting an eczematous eruption should receive a thorough investigation to determine whether or not external contacts are involved. This entails a careful, time-consuming history, and much medical detective work. Occupational dermatitis, which is expected to show an increased incidence as our area becomes more industrialized, should receive additional study in the prevention and protection from offending allergens.

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This symposium reviews briefly and in a most readable fashion the doctor's medicolegal responsibilities in the practice of medicine. They represent facts established over many years. Yet they should be reviewed periodically, and the study of these papers should be a "must" for every young man entering practice.

There is no known immunity to a malpractice suit. A high proportion of practitioners will face a suit at some time in their professional life. The frequency of suits is rising so rapidly that professional liability insurance is in jeopardy. Some underwriters are withdrawing from this form of insurance, and the crisis in liability insurance has stimulated governmental inquiry. (See Editorial page in the September, 1970 TMA Journal.)*

SYMPOSIUM ON PROFESSIONAL LIABILITY

M. K. CHEW, Shelby, Ohio

We are rapidly approaching a state of crisis in the field of professional liability of doctors. This is from the standpoint of the doctors, the insurance industry and the public.

In the past few years the rapid erosion of traditional defenses, the great extension of the area of liability and the measure of damages awarded in reported cases, plainly indicate that the courts are treating you doctors as a special class of citizen.

There has been much preoccupation with the social aspects involved in delivering mass medical services to society as a whole. However, in the final analysis the basic problems revolve around the traditional physician-patient relationship and a proper definition of the doctor's legal rights and liabilities arising out of this relationship. Nothing should be tolerated that interferes with the delivery of the best possible care to their patients.

The persistence of plaintiffs' lawyers in starting suits and obtaining some "boxcar" judgments, the practical destruction of any time limitations against bringing suits, and the erosion of the rules against self-incrimination are only a few of the special considerations that have been imposed against doctors and no one can predict what the next "turn of the screw" might produce.

From the language of some of the cases you might even have the feeling that you should call your lawyer before you pre-

scribe—perhaps you should take your consultations to the courthouse and, finally, to be absolutely safe, maybe you should impanel a jury of laymen to monitor your operations.

In this atmosphere of uncertainty and extension, it is no wonder that the liability insurance companies are giving second thoughts to their professional liability programs. The near impossibility of estimating next year's losses in a rapidly deteriorating market with any actuarial reality, plus the problem of providing against claims that may come back to haunt us from 5, 10 or even 20 years past, plus the ghost claims as far in the future that may arise out of today's practice—all these point up the gravity of the situation from an underwriting standpoint. I am proud to say that even with all these problems, rates for your Professional Liability Insurance in Tennessee are among the lowest in the country. Your insurance companies do not make the rules under which the game is played. In the presence of a "stacked deck" we can only exert all of our energies and skill in an effort to maintain some semblance of sanity in this field.

I believe it is high time that the courts once again took judicial notice of the very essential roles that you doctors play in the lives of all of us. You bring us into this world and we freely place many of the crises of our lives in your hands and you generally have the thankless duty of escorting most of us out of this life.

In the face of all of this the propaganda

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machines grind on. I was amazed not long ago to read a newspaper report that a witness whom I believe was identified as being some gentleman from Yale University, testified before a Senate Committee that fully 95% of the claims for malpractice made against physicians in this country had merit. Now discounting the belief that testimony and reports of this sort are tinged with a purpose, those of us who are engaged directly in this field know from actual experience that the converse of that witness' testimony is probably nearer the truth and that not more than 5% of these claims have merit, under the law as we understand it, unless one is prepared to accept the proposition that everyone is entitled to damages for every misfortune encountered in life.

But the problem will not just go away—the lawyers will not take a holiday—solutions must be found else you positively will be practicing your profession with one eye constantly on the jury.

The JAMA of February 2, 1970 carried a very fine article by Father Thomas J. O'Donnell concerning the close relationship between medicine and religion. He pointed

out the benefits that can inure to the patient through an amalgam of those sciences. By the same token, and perhaps stealing a little of Father O'Donnell's thunder, I believe there must be a community of interest between medicine, law and insurance to preserve that which is good, and at the same time strive for that which will be best in the future, looking toward the welfare of the patient as well as the legitimate interest of the physician.

I do firmly believe that solutions will be found. Many schemes have been proposed but it is not my purpose today to enumerate or advocate. I do want to say that I firmly believe that if you doctors will pool your many resources, including brains, experience, authority and good will, you can restore a much happier climate in which to carry on your chosen work. I am certain that your insurance companies stand willing to offer all reasonable assistance in that direction.

Meanwhile, we are bound by the realities of today and our program is aimed at helping you to live with things as they are.

So You Have Been Sued?*

DAN E. MCGUGIN, Nashville, Tenn.

As I stand before such a distinguished group, I cannot help feeling like the bride on her wedding night when she said: "I am nervous, but I am glad I am here!"

If you have never been sued for medical malpractice, you should take pride in your professional excellence but you should also thank Lady Luck. If and when you are sued, do not think it is the end of the world as many doctors feel. In my experience most such suits involve the ablest and most prominent doctors. So, take pride in being in select company.

Usually a doctor has some advance warn-

ing of a contemplated claim or suit. A hostile attitude on the part of the patient or his family may be manifested; or the patient may commence asking pointed questions; or there may be a request from an attorney for a report.

At the first danger sign, a doctor should do two things. He should make a prompt report to his malpractice carrier and he should thereafter be extremely careful in what he says and does, both in dealing with the patient and in submitting a report to the patient's lawyer. Often the doctor is given the impression the report is wanted for use against some other defendant, for example the patient's employer or the hospital or some third party, when actually the

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request for the report is calculated to produce evidence for later use against the doctor, himself.

Such reports should be factual and complete enough to be adequate, but should avoid, as far as possible, opinions, surmise and the volunteering of unrequested information.

In cases where there is a complete record in a hospital chart, for example, a Discharge Summary or where the doctor has complete Office Notes, he can make his report to the lawyer comparatively brief by attaching a copy of the Discharge Summary or of his Office Note and referring to it. These things can be obtained by the plaintiff's attorney through a discovery deposition and hence the doctor is usually not furnishing anything which cannot be obtained otherwise. Unless a doctor is experienced in such matters, he might go over his proposed report with a representative or attorney for his malpractice carrier, before mailing it to the attorney for the patient.

Often, a conciliatory and pleasant attitude with the patient and the family can resolve hostility, but the doctor must be careful in what he says lest he make an admission against interest, and he must always caution his associates to do the same.

Many claims and suits are precipitated and many are successfully maintained as result of some ill chosen language in a conversation with the patient or his family, or in a report to the referring physician or to the attorney for the patient.

When a suit paper has been served on you, you should make a copy for your file and immediately forward it to your malpractice carrier with a covering letter. This fulfills a duty imposed upon you by your policy contract and it also enables your malpractice carrier and its attorney to take timely action on your behalf.

Immediately upon the institution of a suit, or any advance warning that a suit is contemplated, you should check your Office Notes and all entries by you in a hospital chart to be certain they are complete and accurate.

You should promptly prepare a Narrative Summary on the patient for the information of your malpractice carrier and its attorney.

It is advisable to commence with the first treatment of the patient, although if there is a lengthy period of treatments not directly concerned in the suit, it can be covered quickly but there should be a detailed statement of treatment and problems involved in the suit. Copies of Office Notes and Hospital Charts, where available, and other data should be attached to your Narrative Summary.

If a doctor has not been guilty of malpractice, a suit against him should be vigorously defended even though it might be settled for less than the cost of defense since nuisance settlements tend to breed later claims. On the other hand, if a doctor has made a mistake, it should be readily acknowledged and prompt efforts should be made to settle the claim or suit as quickly and as quietly as possible.

Your initial report to your insurance carrier is confidential; but once an attorney has been employed to handle the case, it is recommended that you thereafter address all correspondence to him, leaving it to him to give your insurance carrier copies. Exchanges between attorney and client are almost always confidential. Hence, your report to your insurance carrier and your correspondence with your attorney should be kept in a separate envelope from your Office Notes which are usually demanded for inspection at the time a discovery deposition is taken and copies are usually exhibited to that deposition.

Occasionally a physician served with a suit paper will sincerely think he can talk the patient and the patient's lawyer out of the suit and he will attempt to arrange a conference for that purpose. This is rarely successful, if ever. On the contrary, it frequently helps the patient's case by educating the patient and his attorney and by putting the patient in a position to quote alleged admissions against interest which often are based on a misinterpretation of what the doctor said and meant, but can sometimes be disastrous to the defense of the case. Once you are sued, you should adopt a hands off attitude with the patient and the patient's attorney insofar as the case is concerned, and you should deal with them only through your attorney. This

does not mean you must necessarily refuse to treat the patient later on if he wishes to return to you, for you can prove in the trial of a case that the patient has not lost confidence in you but has in fact returned for later treatment. However, whether to treat a patient later on is a matter to be considered and discussed with your lawyer in each individual case. The main thing is to be careful to avoid discussing that particular case and especially to be careful to avoid any statement which might be construed as an admission against interest, by which I mean, a confession of malpractice.

Obviously, you must cooperate with your attorney, educating him on the facts of the case and on the medical problems involved: furnishing him with medical texts and articles which you might think will be helpful; giving him the names of witnesses who may be nurses, technicians, other doctors or the like; assisting him in selecting and arranging for expert medical witnesses.

Ordinarily, between the time suit is filed and the time the case goes to trial, the opposing attorney will take a discovery deposition from you. As the name implies, the purpose is to discover in advance what you will say on the witness stand in the trial.

In giving a discovery deposition you should be completely factual, you should answer questions adequately but without volunteering additional information not called for and you should avoid opinions unless directly called for by a question. The discovery deposition so taken from you can be used against you in two ways at the trial. It may be used as part of the plaintiff's proof to bolster up the case the plaintiff is attempting to make out against you. Later during the defendant's proof, if your testimony on the stand differs from what was said in your discovery deposition, the opposing attorney will use it to impeach or contradict you. If you have withheld material facts in giving your discovery deposition, you may be prevented by the judge from testifying as to those facts during the trial.

Some and perhaps most doctors are "terribly shook up" when they are sued. It is impossible for a doctor to avoid some feeling of resentment and some degree of emotional reaction, but do not let it upset you unduly. It is a growing and popular field of litigation and you will be extremely fortunate if your turn does not eventually come.

The Importance and Technique of Keeping Proper Medical and Surgical Records*

RALPH W. FARMER, Memphis, Tenn.

Assuming your technique in performing surgery on a patient is good and you have avoided the pitfalls such as operating on the wrong patient, as mentioned by Mr. Thomason, then you have, in the event of a medical malpractice claim against you, avoided only the first hurdle or gone only the first mile. Almost as significant as the surgical technique in the defense of a medical malpractice case is the preparation and maintenance

of accurate and thorough medical charts and office records. Those of us who try cases in the medical malpractice field have found that on occasions, *Good Surgery and Poor Records May Equal Liability*.

The standard lament I hear from doctors during my first interview and after a review of their office records and hospital charts is: "If I had only known I was going to be sued I would not have put this in the record," or "If I had only known I was going to be sued I would have put these details in the record."

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These laments clearly indicate that many doctors do not have a thorough understanding of exactly how critical records can be in the event a claim is made against them by a patient. I suspect that one of the reasons physicians do not understand the critical importance of record-keeping technique is the philosophical difference between the backgrounds of a physician and an attorney. The law is in a large measure profoundly concerned with the "written word." Lawyers in their day-to-day practice are generally concerned with the meanings of words and their construction in contracts, statutes, ordinances, wills and records. Medicine, however, is the science of caring for the ailments of the human body. Doctors are concerned with treatment of a patient's malady and often give little attention to the details of record preparation. However, when a doctor gets to the courthouse, he finds that the Judge, usually a former attorney, is quite concerned also with the details of records and the meaning, construction and interpretation of various language contained therein. Equally true in many instances, the background of the jury is such that the delicate questions of judgment involved in treating a patient escape them, but they manifest considerable interest and attention to the contents of the records and medical charts. The words in the records and charts are more respected by a jury than the delicate details of complicated surgical technique or preoperative examinations.

Accordingly, "words" and thus "records" receive in most malpractice cases an extraordinary amount of attention at the trial. Thus, I am unable to accede to the request I often receive from my client: "Forget the records, just let me get on that witness stand and tell the jury exactly what occurred," or "Let me get on the witness stand and tell the jury what this case is all about." The reason I cannot accede to this request is that the records are in such poor shape that if I put the doctor on the witness stand without preparing him to handle questions regarding discrepancies in his records, he would be literally torn to pieces by adversary counsel who has carefully reviewed and indexed the records.

Poor medical records are like a kaleidoscope. As you know, in most malpractice cases the patient must present expert testimony to the effect that the physician deviated from standard accepted practice followed by other physicians in good standing, and in like specialty in the community. If the records are in poor shape and contain numerous errors and discrepancies, adverse experts can easily give interpretations to such records which result in an entirely different presentation of the facts. Of course, when the facts are interpreted in such a manner, an adverse expert can often justifiably cast the physician's treatment of the patient in a poor light and may even testify that the physician deviated from standard accepted practice.

Thus, the importance of keeping proper medical and surgical records should be obvious. The technique, however, of keeping proper surgical and medical records is not as easily outlined. Doctors are busy treating the patient's ailments; thus there is a considerable practical problem of expending the necessary time to prepare proper and accurate records and charts.

How complete should medical records be? These are all difficult questions and I feel most attorneys will advise you that there is no "sure-fire" technique and no technique that can be outlined in three simple steps. Technique for preparing proper medical records is like the practice of medicine: an art, an inexact science, and thus simply a question of "Judgment." What to write—When to stop writing—How much is too much—How much is too little—What details should be placed in the record—What details should be omitted from the record. All of these are questions of judgment and, unless your attorney follows you around during the course of your office practice and visits with the patients in the hospital, you are going to have to rely on your judgment for the answers to these questions.

Perhaps a few general comments regarding records would be appropo.

Few physicians realize the law gives a patient a proprietary or property right in the records whether they be office or hospital records. Of course, the records are owned by the physician or the hospital; but

our law provides that the patient has an absolute right to a copy of the records upon proper request. Thus, a physician should never feel confident that any remarks he makes in the record will never be viewed by eyes other than his own. Secondly, every doctor must now realize that in this age every patient is a potential litigant. Statistics today indicate that one of every 6 doctors will be sued during his professional career. No matter how well you know a patient or how impressed he may seem with your treatment, you should never "lower your guard" because the patient may turn at any time and attack. Thirdly, as I previously indicated, a physician constantly must keep in mind that the accuracy and completeness of the records can be just as important as good medical procedure or surgical technique. He should devote as much thought to the preparation of the records as he does to the surgery or treatment performed for the patient. Finally, it is important that the physician devote his attention to preparation of the records and take the time, while the facts are still fresh in his mind, to prepare the records. Don't let the chart get cold and then have to reconstruct in your mind what the facts are. Prepare the charts and office records as soon as possible after seeing the patient. Doctor, simply take time to prepare these records and chalk it up to "the cost of doing business" and take this into consideration in establishing your fees.

It also may be helpful to refer to some specific and particularly troublesome area in connection with hospital charts. In most hospital charts the first page is often called the *Admission* or *Summary* sheet. This is usually a printed form and provides space for the physician to set forth the "Provisional Diagnosis," "Working or Final Diagnosis," "Operations or Special Procedures." Obviously, in most instances physicians will briefly set forth the salient facts and fill in the blanks. It should be noted that a doctor should not be intimidated by the blanks or the lines provided for such information but should feel free to consume as much room as is necessary in his judgment to adequately set forth the information requested.

In most hospital charts the next form will be *Physical Examination* and *History*. Often the information supplied on the Physical Examination and History is obtained by an "extern," "intern" or "resident." In some instances the history taker will even set forth his impression. This form most often contains errors and omissions. *Impressions also are dangerous*. Many doctors make a practice of simply signing the Physical Examination and History without fully examining and reading every detail thereon.

It is important that you carefully proof read every Physical Examination and History before you sign it. You often may find the patient has given the history taker information he did not give you in the office before admission to the hospital, or even that some of the information he gave you in the office is now entirely different from that set forth in the history taken by hospital personnel. In the exigencies of admission to the hospital and impending surgery, the patient often is more truthful than in the office; more reflective and more aware of the fact that the information he may give will directly affect his future wellbeing. Impending surgery is often "truth serum."

The *Consultant's Sheet* is often a trap. The attending physician will call in a consultant, usually a specialist, to request his judgment on a particular aspect of the patient's treatment. The Consultant's Sheet often provides only a few lines for the consulting physician to set forth with complete accuracy and detail his examination, findings and recommendations regarding further treatment of the patient. I am not advocating that the consulting physician write up a 5-page report to be attached to the hospital record but that the consulting physician use whatever paper is necessary to completely and fully set forth the details of his involvement with the patient. Failing to do so may cause you later to find yourself haunted by the very brief and cryptic comments that you set forth on the Consultant's Sheet at a very critical point in the patient's treatment.

The *Laboratory Reports* and *X-Ray Reports* should be carefully examined by the treating physician. Once in a while one finds a variance between the actual result

of a laboratory test or x-ray interpretation and the report itself as finally attached to the record. There are some specialists, such as orthopedists and urologists, who often make their own x-ray examination. Later the x-ray is read by a hospital radiologist and the official report is prepared. Remember the radiologist can make an error in interpreting the x-ray and the radiologist's official report can be at variance from what you actually saw in the film at the time you examined it.

The *Order Sheets* obviously are important. If you phone orders to the nurse for entry onto the Order Sheet, be sure that when you next make rounds you carefully check to see that the nurse entered the orders you gave her and that they are properly dated and substantiated as to the time the orders were given. There is a tendency on the part of physicians to simply "countersign" orders written by the nurse without carefully checking them.

The *Progress Record* is a record that is exclusively the physician's. The physician should write sufficient information to substantiate his judgment in giving orders to set forth on the Order Sheet. The Progress Record should reflect the physician's judgment and thoughts regarding the treatment and regimen to be carried out on every patient. All changes in the patient's condition should be recorded on the Progress Record. Any unusual occurrence or activity should be recorded also. If the patient does not follow the physician's orders, this should be recorded on the Progress Record. If the family interferes in any way with the patient's treatment, it should be recorded on the record.

I have stated that Progress Records are exclusively yours; this is the rule, but as in everything else there is always an exception to the rule. Perhaps I can illustrate this by referring to a recent case that has now been determined—an obstetrical case in which the patient was admitted for delivery. The physician called the nurse and requested that the standard printed Obstetrical Orders be attached to the chart. This was done. The standard printed orders contained an order for Sparine, 50 mg. IM if needed. After the physician arrived at the

hospital the patient was given 50 mg. of Sparine intramuscularly. After delivery the patient developed a wrist drop and it was determined by a neurosurgeon that there had been radial nerve damage as a result of the intramuscular injection of Sparine in the right arm. The patient sued the hospital and the physician. The nurse on duty at the time claimed she did not give the injection but that the doctor did. The physician denied giving the injection and stated that he did not know who gave the injection. The patient was unable to state who gave her the injection because she was unconscious at the time it was given. When the records were examined there appeared on the Progress Record an entry "Sparine, 50 mg. IM" given 'per' Dr. X," and was signed by the nurse and countersigned by Dr. X. There was no entry in the Physician's Orders directing an injection of Sparine other than that appearing on the printed order form. The nurse testified that she in fact saw the physician give the injection. The physician testified that doctors never give injections. The nurse said that was a fact and that was the reason she felt it was so peculiar and made an entry in the Progress Record to that effect. The nurse further stated that in her vernacular the word "per" meant "by," and the physician testified that to him the word "per" meant "through the orders of." The physician also testified that he did not order the injection of Sparine at that time and that if he had, he would have made an entry on the physician's orders other than that set forth in the printed order sheet. The nurse answered by stating, "That's exactly right; the physician didn't order it, he gave it. He didn't write any orders." Who gave the injection? Everybody knew it was not good practice to give an injection at a site which would result in radial nerve damage. The doctor won the case, not on the question of who gave the injection but on the question of statute of limitations after a long trial. However, the case points up the fact that the jury could have believed either party. The doctor was exposed to a serious liability because he did not check the Progress Record; he allowed the nurse to make entries in the Progress Record and then

simply countersigned it without correcting an erroneous entry by a nurse on a record that should be exclusively that of the physician.

The next records of importance are the *Operative Record* and the *Anesthetic Chart*. It has been my experience that most Operative Records are usually in good order. Most modern hospitals have electronic dictating equipment and the physicians generally make use of it to dictate their operative reports. However, I have noticed that as with most other clerical activities there are instances where there will be clerical errors in the typed reports. Thus, the physician should carefully review the typed Operative Report to insure that it is in correct form before signing it. If there are misspelled words, errors or omissions, these should be corrected at the time. The act of signing the operative record should not be considered a perfunctory one.

The *Anesthetic Chart* provides a wealth of information regarding the operative procedure that is not contained in the Operative Record. The physician has little, if anything, to do with preparation of the Anesthetic Chart since it is of course the responsibility of the nurse-anesthetist or the anesthesiologist. However, it is good practice for the physician to at least review the anesthetic record. If he finds that the anesthetist or the anesthesiologist habitually is a sloppy record-keeper, he may find it advisable to admonish her and/or to use other anesthesiologists.

One of the most difficult areas in hospital record-keeping is that of the *Nurse's Notes*. This is the exclusive domain of the nurse. However, the physician should carefully examine the Nurse's Notes since they often are a source of important information and sometimes gross errors. Nurses have a tendency to become emotionally involved with patients and their notes in many instances are colored by that emotional involvement. Of course, as the nurse records facts regarding a patient's condition which are significant with respect to his treatment, the physician should follow this up with some entry in the Progress Report. If the physician finds that the nurses are not following his instructions explicitly, he should

record it in the Progress Record and admonish the nurses accordingly.

After a patient sues a hospital and a physician there may be a parting of the ways between the hospital personnel and the physician, and a record entry of dereliction on the part of the nursing personnel may give the physician some comfort in substantiating his position. If the nurses are not following orders set forth on the order sheet, it is good procedure to re-record the orders and emphasize that they are to be followed explicitly.

Nurses also have a tendency to make diagnoses. Entries have been found wherein the nurse recorded "the patient has an unligated post-op bleeder" or that a patient is "suffering a headache from a previous myelography procedure," or that a patient has experienced an "x-ray burn." Nurses should record the facts and not attempt to diagnose the cause of the findings. It is the physician's job to make the diagnosis and determine the cause of the findings.

The *Discharge Summary* is considered by some to be one of the most important records in the entire Hospital Chart. It is the practice in most metropolitan areas in large hospitals to use electronic dictating equipment to dictate in detail the Discharge Summary. It is the physician's opportunity to pull the whole case together "after the fact." Here the physician can illustrate and point out the complexity of the patient's medical problems, the fine points of the differential diagnoses, the necessity and reasons for the examination and the diagnostic procedures performed, and to medically demonstrate the exercise of his medical judgment on the medical questions involved. It provides the physician with an opportunity to set forth the chronology of the patient's treatment and the patient's response in regard thereto. A good Discharge Summary takes time to prepare and necessitates reflection and careful consideration by the physician. As pointed out earlier, it is necessary for the physician to take time to properly prepare the records and he must consider his time in record keeping in determining his fees and his cost of doing business.

In conclusion, it might be interesting to

look to the future with respect to the preparation of records. The age of the computer has arrived. At the Mayo Clinic or some other large metropolitan hospital such as Cleveland Metropolitan General Hospital, computerization has occurred. These institutions are already employing a video screen and a "light-pan" for use in recording and retrieval of a patient's historical and physical data. Medidata Sciences, Inc., and others in this field have already perfected and installed other systems employing computers. In some instances the patient sits in an automated console and punches keys. The computer asks questions regarding the patient's historical and physical data and records the answers. The

"print-outs" of the answers are automatically dispatched to the physician's office and to the hospital record room. The computer in this system will even "prompt" the physician by printing out the significance of the patient's response from a medical standpoint. The question therefore arises: What is going to happen when the computer obtains, records or prints out the wrong data? Hopefully, our moderator, Mr. Chew, does not have International Business Machines insured by his company. I suspect the attorneys who customarily represent patients in cases of this sort are going to find it expedient to joint a new defendant in the medical malpractice case—that is, the computer manufacturer or programmer.

Surgical Hazards from a Legal Standpoint*

JOHN THOMASON, Memphis, Tenn.

The title, "Surgical Hazards from a Legal Standpoint," in the context of the other talks being delivered today, might be paraphrased "Legal Pitfalls Peculiar to Surgery."

Surgery, by its very nature, occasions incidents which frequently are the basis of litigation. In a sense, surgery is a violation of a basic human right—the right of a person to be protected from contact or harm by another.

The law protects a person from unwanted contacts. Every person has a right to demand that every other person keep his hands to himself. Of course, a person may waive his right to individual integrity by consenting to an assault—in which event by the consent there is no assault. To one who consents, no wrong is done. In law, one may consent to surgery and the surgeon is not liable for assault for lacerating the body nor is he liable for removal of an organ from the person's body operated upon. But, permission to perform surgery and the extent of surgery is limited by the

terms of the consent.

Perhaps that doctrine—that surgery is limited by the terms of the consent—is not one which is looked upon with favor by surgeons. Perhaps the concept is antagonistic to the practice of the best form of medicine. Perhaps so—but that is the law.

It should be borne in mind that the law does not necessarily put good medical practice ahead of other considerations. The law first protects the rights of the individual. Although it may effectually promote good medical practice, it should be remembered that the law does not *necessarily* seek to promote the best practice of medicine, nor does it *necessarily* seek to insulate the physician from inconvenience, nor does it *necessarily* seek to protect the surgeon from justifying his assault. That is up to the surgeon.

Perhaps it would be of interest to analyze the most dangerous legal pitfalls for the surgeon, and to elaborate to some extent on what can be done to avoid or prevent them.

The leaving of a *foreign body* inside a surgical area is probably the most common basis of litigation resulting from surgery.

*Read at the Annual Meeting of the Tennessee Medical Association, a Symposium on Professional Liability, April 11, 1970, Memphis, Tenn.

Assault and battery, that is, performing surgery outside the bounds of the permission or consent granted is also a frequent basis for suit against the surgeon. Such cases as the removal of the tubes and ovaries when permission for the removal of the uterus only has been obtained, or the removal of an appendix when that was not the principal purpose of the operation, may result in a suit for assault and battery. Even if the surgeon has obtained consent to perform the particular operation involved, the patient may claim that the surgeon did not furnish sufficient factual information for the patient to make a valid judgment on the subject or give "an informed consent."

Unnecessary surgery also may be the basis for litigation. By this, it is not meant the uncalled for surgical procedure prescribed and carried out by a physician greedy for a fee, but rather the surgery performed in good faith upon something less than a complete history, physical, or clinical examination. An example would be the operation to correct a hernia based upon a diagnosis of hernia made by the referring physician rather than upon an independent examination and the exercise of a surgeon's judgment.

Another category which is being subjected to changing concepts is the *responsibility of the surgeon for the acts of others*. The "Captain of the Ship" doctrine has long made the surgeon liable for any negligent act that occurs in the operating room. It is upon this basis that the surgeon becomes liable when a nurse makes an erroneous sponge count or when an attendant repositions the operating table resulting in a mutilation of some extremity of the patient. However, changes are occurring in this doctrine, and the trend would indicate that surgeons in the future may be liable only for the medical functions performed by personnel other than themselves in the operating room, and that their regular employer, for example the hospital, more likely will be the liable party when an error is performed in administrative functions.

Another apparently unlikely category of surgical injury, but one which is not so infrequent as one might suspect, is liability

for the performance of an operation upon the wrong patient.

After a review of these areas of liability, the question naturally arises: "What can be done to avoid these areas of legal liability?"

With regard to the foreign body cases, about all that can be offered is an injunction to be careful, develop new procedures, and insist upon better training for medical personnel who are in fact in charge of counting sponges and keeping up with surgical tools and equipment. Although in some unusual situations the surgeon may escape liability for leaving a foreign body in a surgical area (for example, where an emergency situation requires that the incision be closed at once), nonetheless it is suggested that the surgeon will remain tantamount to an insurer in this situation and will be liable and required to respond in damages in the foreign body case.

To avoid liability for assault and battery for performing surgery outside the scope of the consent given, the surgeon should devote sufficient time for a full discussion with the patient regarding the surgery prior to the operation itself. It will be necessary for the surgeon to take the necessary time to reasonably explain the important hazards involved and to disclose such risks as good medicine requires him to disclose. It is not necessary that the surgeon advise as to every conceivable complication, but he should exercise reasonable judgment in advising the patient of the hazards that the patient undertakes by agreeing that the surgery be performed on him. Should an unforeseen complication occur during the operation, when it is impossible to obtain consent to proceed, the surgeon will simply have to use his best judgment and hope to be vindicated by the result.

To avoid liability for performing unnecessary surgery, the surgeon should check the diagnosis of the referring physician and be sure that he is using his own judgment rather than substituting the judgment of someone else for his own.

As previously mentioned, the law seems to be changing with regard to the surgeon's liability for the acts of others. It may be

that future cases will further limit this concept so the surgeon will become liable only for surgical areas and will not become liable for such functions as counting sponges, cranking operating tables, operating the sterilization machine, etc.

Just as an ounce of prevention is worth a pound of cure in medicine, so is a telephone call to a lawyer seeking advice in the

face of a problem worth a pound of expert testimony and trial preparation in the event suit is filed. So, as one final injunction and recommendation as to how to avoid legal pitfalls, the surgeon is advised to refer the matter to a specialist:—a lawyer familiar with the unique field of medical malpractice law and able to offer sound advice and assistance in a potential malpractice situation.

* * *

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CASE REPORT

Necrotizing Scleral Degeneration Treated With a Graft of Autogenous Fascia Lata*

Jemison Bowers, M.D., and

I. Lee Arnold, M.D.

Chattanooga, Tennessee

We would like to present a case report of a scleral degeneration:

The patient was a 74 year old white woman who presented April 23rd, 1969 with a one week history of the right eye being red and swollen. She had been seen 6 months previously with what appeared to be acute conjunctivitis of the right eye, without ulceration that was treated with a solution of sulfisoxazole (Gantrisin). She had not returned thereafter.

The right eye had a moderately large ulcerated area in the inferior temporal sclera of about 1 cm size. There were no nodules. The eye was moderately painful. The corrected vision was 20/30 and the tension normal. There were no signs of uveitis or of fundal lesions. X-rays revealed no radioopaque foreign body. She was put on treatment with neosporin, isotocetamide, and hot compresses. The second visit a week later showed no objective changes and a culture grew *Staphylococcus epidermidis*, coagulase negative. Ophthocort ointment was used later.

Since the ulceration continued to enlarge, she was admitted to Erlanger Hospital June 1, 1969 for a general medical survey, to be seen by other ophthalmologists, and for conjunctival biopsy. Examination of the eye now showed a large 1.5 cm ulcer with a pearl gray base, and a small more brown "button" toward the cornea. (Fig. 1.) The uvea actually was not exposed. The conjunctiva stopped sharply at the border of the



Fig. 1

*Read at the meeting of the Tennessee Academy of Ophthalmology and Otolaryngology, April 10, 1970, Memphis, Tenn.

ulcer. The corrected vision was 20/40 and J 6. There was no cell or flare. Tension was normal. The lens had some early cataract changes. A conjunctival biopsy showed only acute and chronic inflammatory changes. Acid-fast bacterial stains were negative.

Medical evaluation included a vague history of a migratory type of arthritis with swelling, redness and stiffness of the shoulder, elbows, wrist, and finger joints that had been treated with salicylates and phenylbutazone. She had been placed on Sterazolidin about April 4th, 1969.

The VDRL and tuberculosis skin test were negative. Chest x-ray showed some fibrosis. Blood chemical tests were normal except for a slightly elevated BUN. She had a weakly positive rheumatoid arthritis test. No L.E. cells were found. The serum protein electrophoresis was normal. The medical consultant made no diagnosis of systemic disease other than degenerative joint disease, pulmonary fibrosis and asthmatic bronchitis, and atherosclerotic heart disease.

Treatment of the eye continued with antibiotic and steroid ointment, but deterioration continued with enlargement of the ulcer. No uveal ectasia developed.

On June 26, 1969 autogenous fascia lata was obtained from the thigh and a section was fitted over the ulcerated area from which some necrotic tissue was removed. (Fig. 2.) Cautery was not used. The graft was held in place with 6-0 silk sutured to the surrounding episclera. Conjunctiva was brought up from the lower fornix to cover the inferior part of the graft. Heavier 4-0 silk was brought over the graft to give additional support. Postoperatively the patient was treated with Ophthocort.

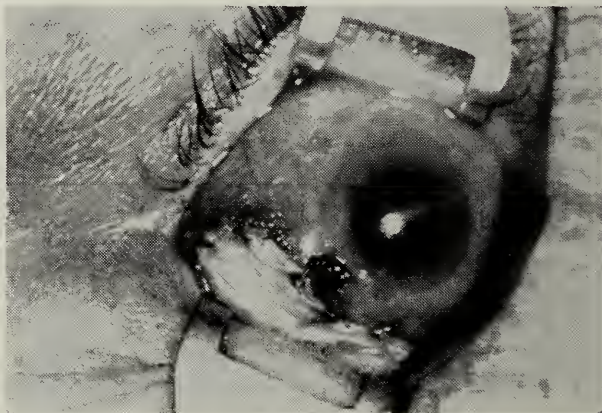


Fig. 2

By August 6th, when the patient was last seen in Chattanooga, the graft was still in place and seemed to be viable and conjunctiva had covered over part of the graft. However, a new area, inferior and temporal to the graft, was beginning to appear dark. The patient continued to complain of pain. The eye was only slightly irritated.

The patient was seen next in the Johnson

City Eye Hospital where on October 20, the eye was enucleated. The eye was described as being a "deteriorating eye," the sclera of which was "crumbly" and had to be excised piecemeal. Almost no bulbar conjunctiva was present so a standard enucleation closure could not be done.

The eye was sent to the Kresge Eye Institute for pathologic study. The report was of "panophthalmitis." Nothing was found that was considered indicative of necrotizing scleritis nor scleromalacia. The slides from Kresge were sent to the Armed Forces Institute of Pathology for further review. There it was initially classed as a severe necrotizing and granulomatous inflammatory process involving all tunics of the eye. Further stains and study are being done.

Discussion

The entity of necrotizing inflammations of the sclera, in which the sclera melts away exposing the uvea, was first defined by Van der Hoeve in 1931 as scleromalacia perforans. Van der Hoeve,¹ in 1934, and Franceschetti and Bischler,² in 1950, recognized two forms. One to be called *scleromalacia perforans*, had a quiet, indolent, painless clinical course with progressive necrotic sloughing of the sclera. Usually rheumatoid arthritis was present. Often lesions were bilateral and multiple, and found in women in the 50 to 75 age range.

The other form was termed *necrotizing nodular scleritis*, and this has marked inflammation and pain, with inflammatory nodule formation followed by necrosis. There can be some resolution and reactivation. It occurred in either male or female in the 50 to 75 age group, and was usually unilateral with random distribution.

This patient seems not to fit into either group; the lesion was unilateral. It was mild to moderately painful, but with indolent inflammation. No nodules were found. A vague arthritis was present.

Treatment generally has been unsatisfactory. Steroids topically and systemically have improved some instances with inflammation, but none have healed completely. Scleral holes have not closed. In fact, progression of hole formation has been seen to occur with steroids in some cases. A graft is required to close scleral holes, and various types of tissue such as preserved sclera, autogenous fascia lata, auricular cartilage, conjunctiva, and buccal mucosa have been used.

It is of great interest to note here that the patient was started on Sterazolidin some 3 weeks before presenting with a scleral ulcer. Sterazolidin is a combination of phenylbutazone and prednisone. The obvious question is whether Sterazolidin actually augmented the ulcer formation in this case.

The fascia lata graft initially seemed to take but an area of new malacia was later noted adjacent to the graft. The eventual outcome was a disintegrating eye with a generalized necrosing of the sclera, with panophthalmitis necessitating its removal.

References

1. Van der Hoeve, J.: Scleromalacia perforans, Arch Ophth 11:111-118, 1934.
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Discussion

Norman Sawyer, M.D., (Johnson City, Tenn.)

Limited time does not permit much more than a summary of salient clinical, histologic, and therapeutic features of the destructive scleritis in rheumatoid arthritis.

This case of brawny (gelatinous, fleshy) scleritis is an example of only one phase of a continuous spectrum of violent ocular response to systemic collagenvascular diseases such as rheumatoid arthritis, with which it is most often associated, periarteritis nodosa, giant cell granulomatous vasculitis, lupus erythematosus, etc. Sarcoid, syphilitic, tuberculous, gouty, and other forms of disease may resemble the brawny type of oculopathy. Perforating scleritis is the form most usually associated with rheumatoid arthritis.

The scleritis characteristically develops at onset or sometime after one of these diseases is well established, but occasionally it may herald by many months or years the appearance of the systemic autoimmune stimulus.

Despite past tendencies to over-classify this scleritis, a satisfactory term for all forms is necrogranulomatous scleritis, whether the sclera be diffusely and widely thickened (brawny) or full of filmy holes filled with alarmingly bulging uveal tissue and necrotic material (scleromalacia perforans), or a combination. This designation, necrogranulomatous scleritis, nicely ties the gross appearance of the lesion to the microscopic, unifies the disease process, and applies significantly and with equal validity to the rheumatoid nodule whose histology strikingly resembles autoimmune scleritis.

Clinically, the prevalence of the malady is almost rare. The patient is usually a 50 to 60

year-old female rheumatoid arthritic whose systemic disease is usually moderately advanced. One or both eyes may be afflicted with the massive, painful, brawny process, or be slowly and painlessly undergoing scleral melting away in a "Swiss cheese" pattern with large uveal dehiscences in each defect. Both of these basic patterns and their combinations characteristically involve the anterior sclera, not infrequently the limbus (with ectasia), and occasionally invade the cornea with sclerositis, vascularization, and blindness. The propensity for the anterior sclera is unsolved, although the mild, traumatic irritation of upper lid action on sclera infiltrated with antigenic fibrin may be the pathologic stimulus, since a very similar process will produce the experimental rheumatoid nodule in tendons. It has been shown not to be on a vascular ischemic basis.

In both varieties, yellow-white cheesy, nodular mounds resembling abscesses, are first seen as a single or several small isolated, inflamed nodule in the anterior sclera or at the limbus, later becoming prominent and containing the central fibrinoid necrosis surrounded by the usual palisaded array of giant cells, plasma cells, epithelioid cells and plasmacytes typical of inflammatory destruction seen in the rheumatoid nodule.

The cheesy nodules break up into sequestra,

usually revealing large and small circumscribed areas of remarkable scleral thinning whose substance may be only a dehydrated, transparent scleral membrane or simply conjunctival shreds. The brawny mass may thin progressively after a long history of recurrent bouts of acute inflammation, so that it can resemble the perforating malacial form finally. The perforating variety seems less painful and may be asymptomatic, but with relentless wasting both forms eventually became complicated by increasingly severe uveitis and glaucoma, leading to enucleation. There is no known reason for the wide variety of clinical forms in this type of scleritis but it may be simply one of degree of severity; histologically, they are identical.

Therapeutically, a fair percentage of eyes undergoing malacial perforation can be salvaged by essentially overlay-grafting the defects with fascia lata or sclera, the latter much preferred. Failures occur most often from loss of the graft to the relentless malacia. Stress is laid on the ineffectiveness of conservative surgery such as conjunctival or Tenon's fascia graft, and of systemic or topical corticosteroids in any dosages. Grafting brawny scleritis seems hopeless, and it is depressingly clear that all forms of this devastating ocular calamity will be overcome only when the metabolic mechanisms causing rheumatoid arthritis and other collagen vascular diseases are arrested.

* * *

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THE MATTHEW WALKER HEALTH CENTER OF MEHARRY MEDICAL COLLEGE: OEO-funded Neighborhood Health Center*

LESLIE A. FALK, M.D., Ph.D.†

Nashville, Tennessee

This will be a brief description of key facts, presented without significant analysis.

The Center is a so-called comprehensive, ambulatory, family and community oriented program, located in a new building on a 2 acre site at Herman Street, 5 blocks southeast of Meharry, past Fisk University. It is the home now of the entire Department of Family and Community Health of Meharry Medical School which administers 3 components, service, teaching and research. It serves the poorest among some 35,000 people in northeast and south Nashville, the great majority of them black. Medical students, house-staff and others are taught there. The staff now nears 200 persons, half of them previously poor, unemployed and undereducated. Some are scholars in the Health Services Research Unit. Some are teachers of medical students.

It is named the Matthew Walker Health Center of Meharry Medical College to honor Dr. Walker's lifetime of service to the community and to the College. He worked initially with Dr. Ralph Hines, now Vice-President of the College and with Dr. Horace Frazier, recently deceased, on the Center's initial planning grant. Dr. Walker is now Chairman of the Center's Advisory Committee.

OEO has underwritten the entire cost of the service program, but earned income must be collected. It has started from various sources, e.g., from Medicare.

*Presented to the Nashville Academy of Medicine—Davidson County Medical Society on a panel entitled "New Delivery Systems in Health Care in our Community," May 12, 1970, Nashville.

The project reported was performed pursuant to a grant from the Office of Economic Opportunity, Washington, D.C. The opinions expressed are those of the author and should not be construed as representing the opinions or policy of any agency of the United States Government.

†From the Department of Family and Community Health, and the Matthew Walker Health Center of Meharry Medical College, Nashville, Tenn.

The building is over 30,000 square feet in size. It was occupied in November, 1969. Financing was through a FHA-insured mortgage, utilizing the so-called "Billion Dollar Fund" of a large insurance company, backed by OEO.

The program stresses personal and family care, continuity with the same doctor—who has his patients, his families, his neighborhood and his family health team.

Dental care is included equally. Nursing and social services are provided in the Center and in the home.

Comprehensive care in the sense of a very broad scope of benefits is provided, e.g., including services which also include basic mental health, family planning, eye care and eyeglasses, laboratory, x-ray, prescribed drugs, prescribed special foods, dietary and home economic advice, rehabilitation, a great deal of transportation and many other services. A playroom and connected play space are available for children while other family members receive care.

Prevention and health maintenance are emphasized, as are psychosocial dimensions. Well baby and sick child care are unified under the pediatrician; as are tuberculosis case-finding and chronic disease management under the internist; family planning and other female care is under the obstetrician-gynecologist.

Each family has been, or is being, preregistered on home visits by a neighborhood health worker, all of whom are residents of the vicinities served. The family is invited in for a health examination if they do not already have a regular personal physician or dentist, or a regular arrangement for medical or dental care, (e.g., at the Nashville General, Vanderbilt or elsewhere at Meharry). Transportation by station wagon is offered. On arrival at the Center the patient is conducted to a family health suite. A self-administered shortened and "translated" Cornell Medical Index history form is used with help given by a family suite health worker, also recruited and trained in the program.

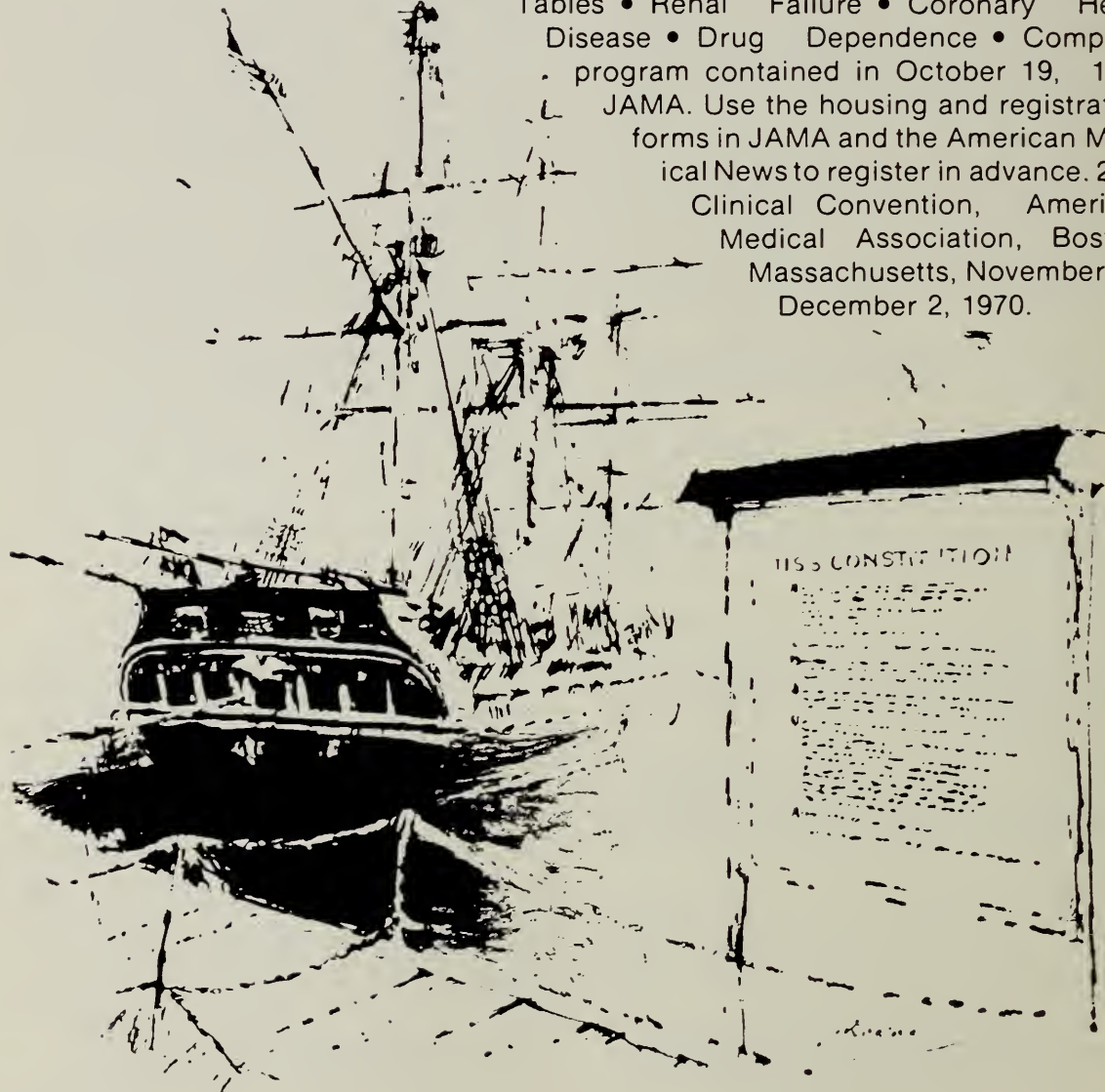
Service is by an appointment system. But "drop-ins" with emergency problems are welcomed. It is open for 14 service hours a day—7:30 a.m. to 9:30 p.m., Mondays through Fridays, and 9:00 a.m.—1:00 p.m. on Saturdays. Our doctors rotate "on call" nights and weekends.

Eligibility for service is by place of residence and by income. Income has just been adjusted by national OEO to \$3,600 per year for a family of 4, some \$500 more or less for each dependent. A recent ruling by OEO indicates that we will be allowed to serve those above the level on a sliding fee scale or on a basis of sliding medical insurance premium.

Our Health Council of 33 persons is elected by the members of our Health Association. It shares policy-setting functions with Meharry Medical College.

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M M E D I C A L J O U R N A L D I G E S T

News of Interest to Doctors in Tennessee

EXCLUSION OF OSTEOPATHS FROM HOSPITAL STAFF VALID IN TENNESSEE . . .

Exclusion of osteopaths from the staff of a hospital within the state is not unreasonable and is for the protection of the public, according to a Tennessee appeals court. A bylaw limiting practice at the hospital to M.D.'s from approved schools was held valid and not in violation of the constitutional rights of an osteopath whose application for appointment to the staff was rejected. This review was reported in the "Citation", an AMA legal publication . . . The applicant, a graduate of an osteopathic college, had served a clerkship of one year at a Missouri osteopathic hospital. He was licensed as an osteopath in Tennessee and was on the medical staff of a local private hospital. His application for appointment to the medical staff of the county general hospital was rejected. The bylaw involved required the applicant for membership on the medical staff to be a graduate of an approved medical school, to be legally licensed to practice in the State of Tennessee (qualified for membership in the local Medical Society) and to be practicing in the community or within a reasonable distance of the hospital. It further stipulated that he should be of good moral and professional standing.

Under the Tennessee statute, there were no restrictions as to practice in the hospital except as provided in the definition of the term "staff physicians" . . . A physician is defined as being a graduate of an accredited medical school authorized to confer upon graduates the degree of doctor of medicine (M.D.) and who is duly licensed in Tennessee, or an osteopathic physician who is a graduate of a recognized osteopathic college authorized to confer the degree of "doctor of osteopathic (D.O.)" and who is licensed to practice osteopathic medicine in Tennessee.

* * * * *

FINDINGS OF THE TRIAL COURT . . . The trial court found that the words "graduate of an approved medical school" in the hospital bylaws had been construed by the trustees to mean a school approved by the American Medical Association. This, it ruled, was against public policy and illegal. A decree was entered ordering the trustees to consider the osteopath's application in accordance with the remaining valid bylaws . . . The hospital trustees and members of the medical staff testified that, after investigation, they found the medical services and abilities of the osteopath to be substandard. They denied that he was rejected solely because he was not an M.D.

* * * * *

APPEALS COURT REVERSES TRIAL COURT DECISION . . . The appeals court ruled that hospital officials must have great discretion in the selection of a medical staff. The court observed that when a physician is admitted to the medical staff of a hospital, the public justifiably assumes that the management vouches for the competency of such physician. Members of the staff take turns being on call. Emergency patients often have no

alternative but to be treated by a staff member who is on call even though such patients do not know the staff member. Such emergency treatment often involves major surgery or other treatment attended by great risk to the patient . . . The Tennessee legislature itself set a precedent by not qualifying D.O.'s for membership in the State Hospital Board. Also, it was pointed out, the osteopath's college had never been approved by the state Board of Medical Examiners, nor had the osteopath himself ever been examined by the Board.

In reversing the decree against the trustees, the court specifically ruled that since D.O.'s and M.D.'s do not generally attend the same medical colleges and do not generally receive internship training at the same hospitals, and since they are not examined and licensed by a common medical examining Board in Tennessee, the trustees of a public hospital have a legal right to accept only M.D.'s as members of the medical staff to the exclusion of D.O.'s and other practitioners who are not M.D.'s . . . State of Tennessee ex rel. Carpenter v. Cox, 453 S.W.2d 69 (Tenn.Ct.App., Western Sec., March 20, 1969; cert. denied, Tenn. Sup.Ct., Aug. 27, 1969)

* * * * *

TENNESSEE'S POPULATION GROWTH WILL AFFECT PHYSICIANS AND HEALTH CARE . . .

The final tally of the 1970 national census reveals Tennessee's population to be 3,838,777, up 7.6% over 1960. The figures reveal that Tennessee is growing slightly more slowly than the national average . . . Two of Tennessee's cities, both large medical centers, are now included in the fifty largest cities in the nation . . . Memphis showed a gain of 24.8% in the preliminary count that places Memphis as the seventeenth biggest city in the U.S. (Population 620,873) . . . Nashville is now the nation's thirtieth largest city, rising from 73rd over the last decade. In the preliminary count, Nashville and Davidson County has 444,489 people, a gain of 44,746 . . . Knoxville population gained 51.8%. Chattanooga dropped from the 92nd rating in the nation to 126th, population loss of 13.1% over the decade.

* * * * *

TMA HEADQUARTERS BUILDING ADDITION READY FOR OCCUPANCY . . . The greatly improved facilities included in the addition to the present headquarters building of TMA in Nashville, was ready for occupancy on October 1 . . . TMA staff personnel have moved into the additional office space where added facilities include a sizeable workroom for mimeographing and mailing; better lighted working space; and more efficient working conditions for the activities that are performed by TMA. Further renovation is yet to be completed on the original headquarters building after which the finished unit will have considerably improved meeting facilities.

* * * * *

NEWS BRIEFS . . . American Board of Family Practice will have its second examination for certification February 27-28, 1971. For information, write N. J. Pisacano, M.D., Secretary-Treasurer, American Board of Family Practice, University of Kentucky Medical Center, Annex No. 2, Room 229, Lexington, Kentucky 40506 . . . The late Walter Reuther's national committee for health care has filed a plan for a national, socialized medical program. The committee report contains an interesting economic inconsistency. It estimates cost of the program at \$37,000,000, but fails to explain how this figure could be realized when present total health care spending in America approximates \$60,000,000.

Public Service

Communications Legislation

Hadley Williams, Public Service Director

TMA-SEF NEEDS SUPPORT . . . TMA's Student Education Fund has become an increasingly active program since its inception in 1963. A substantial cutback in Federal appropriations, coupled with an increase in the cost of medical education, has put a severe strain on programs providing financial assistance to medical students. Consequently, more students are turning to TMA-SEF for assistance. There were more loans made during the past year than in any three previous years and as a result, the loan program has now depleted its funds. The existence and continuation of this loan fund depends entirely on periodic endowments by TMA and voluntary contributions by physicians and other interested individuals. Over the past several years, TMA has allotted \$69,000 to the Student Education Fund and since it is impossible to continue providing this type of support, individual contributions are necessary to perpetuate this most worthwhile TMA program. Interested in helping? Send your tax-deductible contribution to TMA-SEF, 112 Louise Avenue, Nashville, Tennessee 37203. (See Editorial for further comment).

* * * * *

MARYLAND DEVELOPES UNIQUE MEDICAID PLAN . . . The State of Maryland will launch an experimental program under its Medicaid program which will package medical and dental services now provided under the plan. Under the plan, which is the first in the nation, the State would pay hospitals a single fee based on the number of patients treated, rather than the services provided. Two hospitals, Johns Hopkins and Greater Baltimore Medical Center, have enlisted in the program. Under the plan all medical and dental treatment, including hospitalization, will be provided with Medicaid beneficiaries having the choice of enlisting in the plan or continuing to receive their services and treatments from physicians and dentists of their choice.

* * * * *

PROFESSIONAL INCORPORATION RECOMMENDATIONS . . . A Waterloo, Iowa professional management consultant, Howard Baker, recommends four tests for physicians considering incorporating. They are (1) a group should have a minimum of two physicians and three is preferable; (2) the group should have an average profit per physician of at least \$35,000, with no one in the group lower than \$30,000; (3) the physicians should collectively be willing and able to contribute at least 10% of their earnings to a profit-sharing plan; and (4) the physicians should be presently in partnership practice together, so they know in advance that they can practice successfully as a group. It should also be noted by those considering incorporating that IRS has legislative proposals in the mill that would remove the extra advantage employees enjoy in tax treatment of pensions in corporations as compared with self-employed plans. IRS' general counsel has warned that it might prove difficult to unincorporate without "adverse tax consequences."

CONSUMER GROUP CONDEMNS CHIROPRACTIC . . . The Consumer Federation of America has urged the Senate Finance Committee "to reject the inclusion of chiropractic services under the Medicare, Medicaid and all other federally supported health programs." The federation is composed of 184 local, state and national consumer organizations and adopted the policy at its Annual Meeting in August. The statement said in part that it is "gravely concerned that Medicare coverage of chiropractic services would needlessly expose beneficiaries to potential health hazards, particularly the harm which would result when beneficiaries treated by such practitioners delay or avoid seeking proper medical care. The inclusion would add substantially to the cost of the Medicare program and studies of chiropractic have not produced evidence of the scientific validity of chiropractic theory and practices."

* * * * *

HEW REPORT ON CHIROPRACTIC . . . HEW's Task Force on Medicaid and related programs recommended that payment for the services of chiropractors is not an effective use of Federal Medicaid funds. Since individual states have the option of including chiropractic services under Medicaid programs, the report further recommended that a legislative amendment be enacted denying Federal financial participation in Medicaid payments to chiropractors and naturopaths.

* * * * *

FORMER OFFICIAL SAYS PHYSICIANS TRAPPED . . . Mr. Robert J. Myers, former chief actuary for the Social Security Administration until his resignation earlier this year, gave his views of Government health care programs and physician participation in a speech before the Oklahoma State Medical Association. Mr. Myers said: "The physicians of this country have been neatly trapped by the social planners, who secretly envy their high incomes, whether real or only apparent, and thus criticize them on any possible grounds. The intent of the Medicare program was that persons aged 65 and over should pay the same physician fees as younger citizens and thus should not be second-class citizens by being given lower, 'charity' rates. Now that the physicians have charged in this manner, they are severely criticized! If they had artificially held down their fees for Medicare patients, then they would have been subject to the danger that the social planners would have pointed out that Medicare was operating very well and at a low cost and that therefore it should be extended to the entire population. You can't win."

* * * * *

AVERAGE DAILY HOSPITAL COSTS CONTINUE TO CLIMB . . . The Guide Issue of Hospitals, published by the American Hospital Association, reports that the average daily hospital cost in 1969 was \$70.03. The figure reflected a 17.3% increase over the daily per-patient hospital cost of \$61.38 reported for 1968. Employee wages, up 16.2%, is the main reason for the rise which was the second largest increase in history. Payrolls of the Nation's hospitals in 1969 was \$9.8 billion which represents a 16.2% increase over the \$8.4 billion 1968 payroll. There were 1.8 million hospital employees last year, 280 per 100 patients.

* * * * *

MEDICARE CLAIMS HAVE CUT-OFF DATE . . . The fiscal intermediary for Medicare in Tennessee, Equitable Life Assurance Society, reminds physicians that all claims for services rendered to Medicare recipients between October 1, 1968 and September 30, 1969 must be received at Equitable's Nashville Office by December 31, 1970 in order to qualify for reimbursement. Physicians should double check records of their Medicare patients and submit claims for any services rendered during the 12 month period above before the cut-off date. Equitable's mailing address is P.O. Box 1465, Nashville, Tennessee 37202.

President's Page



TOM E. NESBITT

It is generally agreed that the most urgent problem facing our country in terms of "the health care crisis" is the lack of medical manpower. A solution to the very real shortage of physicians, in turn, poses a challenge which the medical profession cannot and must not ignore. Physicians have always acknowledged and accepted the responsibility for helping younger men to become doctors. Today that obligation is even greater.

There is one avenue available to every Tennessee doctor which offers an opportunity to participate in a program of help to deserving young men who are entering the study of medicine. That route is through the Tennessee Medical Association—Student Education Fund (TMA-SEF). The TMA-SEF is now seven years old and has over \$70,000 on loan to Tennessee boys in medical school. These loans are non-interest bearing until one year following the completion of medical school; they are made only to Tennessee residents who are needy and deserving; they cannot exceed \$2,000 per year nor more than \$5,000 to any one person; they are available to first-year students; they are secured by a life insurance policy on the recipient.

Today the TMA-SEF is out of funds! In approximately three years this fund will be self-perpetuating as loans begin to be repaid, but at the moment there are no available funds to continue the program. The Board of Directors of TMA-SEF is currently mounting a campaign to raise at least \$30,000 to provide loan money for the next three years. Unless this money can be raised, our TMA student loan program must be drastically curtailed.

I hope every member of TMA will consider this appeal for funds as an opportunity to participate in fulfilling his Hippocratic Oath to help in the training of young physicians. Send your contribution of \$25 or \$50 or \$100 to TMA-SEF today—and urge your colleagues to join with you. Make this an important facet of your 1970 tax-deductible giving.

Sincerely,

A handwritten signature in cursive script that reads "Tom E. Nesbitt".

M.D.

President

THE JOURNAL

OF THE
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R. H. KAMPMEIER, M.D., Editor

ADDISON B. SCOVILLE, JR., M.D., Associate Editor

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OCTOBER, 1970

EDITORIAL

TMA—STUDENT EDUCATION FUND

An activity of the *Tennessee Medical Association* which unquestionably has the approval of each of its members, is the Student Education Fund. Its history and purposes are quoted from the brochure each member has received upon one occasion or another.

History and Purpose. The Tennessee Medical Association Student Education Fund was incorporated as a non-profit organization on June 23, 1963 for the purpose of providing financial assistance to talented students interested in pursuing a course of study leading to a Doctor of Medicine degree. The existence and continuance of this loan fund depends on periodic endowments by TMA and the voluntary contributions of the physician membership and other interested individuals.

Availability and Amount of Loans. The amount of funds available for loans is limited and efforts are made to give priority to first year medical students. Initial loans are granted in various amounts depending upon a student's needs, however, no loan will be made in excess of \$2,000. An additional loan up to \$1,000 may be granted for subsequent years but in no event can the total amount to one individual exceed \$5,000.

Eligibility Requirements. To be eligible to apply for a TMA-SEF loan, a person must be:

- (1) a resident of the State of Tennessee,
- (2) enrolled or accepted for enrollment in medical school, and
- (3) in need of financial assistance to pursue a course of study.

Obligation of Loan Recipient. The recipient of a TMA-SEF loan is required to sign a promissory note and agree to:

- (1) secure a life insurance policy for a minimum of \$2,000 face value, or equal to the amount of the loan granted, whichever is greater, naming Tennessee Medical Association Student Education Fund, Inc. as beneficiary, and
- (2) advise TMA-SEF on or before April 1st of each year of progress made in pursuing his medical education and promptly advise of any change of address.

A unique feature of this program is that loans bear no interest until maturity. After maturity, all loans bear interest at a rate of 10% per annum until paid.

When A Loan Matures. The note is due and payable one year after the date of the loan. It is renewable at the discretion of the TMA-SEF Board of Directors, following a personal interview with a Board member to determine if satisfactory progress is being made and annual requirements continue to be met.

Board of Directors. A Board of Directors composed of six physicians administers the TMA-SEF loan program. The Board meets annually each April and on special call to consider loan applications.

Since 1963, the TMA Board of Trustees has allotted \$69,000 from its funds to the Student Education Fund. Additional monies have been received from gifts by members of TMA. The total number of loans made to date is 58, of which 49 are outstanding at the moment.

However, the fund is in serious need of replenishment because of several circumstances of recent origin which account for a sharp rise in requests for financial assistance by impoverished medical students. A major factor in this has been the cutback of federal funds—the Health Professions Scholarship and Loan Funds. Additionally, the tuition at the University of Tennessee College of Medicine and at Meharry Medi-

Erratum

Page 751 (Sept. 1970)

In *Summary*—"the use of 5 millicuries," should read—"the use of 5 microcuries."

cal College has been increased substantially. As a result the coffers of the TMA Student Education Fund are empty after parcelling out what was left, leaving additional needy medical students without a source to which to turn for a loan.

We urge that TMA members, as they begin to think of their income tax returns within the next few months, will remember this activity of their Association as a place for deductible gifts.

DR. H. B. EVERETT—PAST PRESIDENT

On August 8, Hiram Bailey Everett died in Memphis at the age of 86 years. His term as President of the Tennessee State Medical Association was in the year 1933-34.

A native of a rural county in Mississippi, Dr. Everett attended the public schools of his county and later the Georgia Robertson Christian College of Henderson, Tennessee. He entered the Memphis Hospital College in 1902, receiving his M.D. degree in 1906. He won an internship at St. Joseph's Hospital, of Memphis, on a competitive examination. The following year, after completing the internship he entered practice in Birmingham, later incorporated into Memphis, maintaining his office at the same address until he retired from active practice. Dr. Everett served as Chief of Staff of St. Joseph's Hospital and held staff appointments at other Memphis hospitals. He was elected as vice-president of the Tri-State Medical Association in his earlier days of practice.

His interests in organized medicine brought him the presidency of the Memphis and Shelby County Medical Association and committee appointments in the Tennessee State Medical Association, ultimately the Speakership of its House of Delegates, serving during six terms before his election to the Presidency of the State Association. Additionally, Dr. Everett represented Tennessee in the AMA House of Delegates from 1927 to 1950.

He was deeply interested in the law and earned the nickname of "Chancellor" by his friends. However, this interest made him a valued member of the Medical Defense Committee of the State Association. Dr. Everett found numerous extracurricular

interests in the business world—active in the affairs of the Memphis Physician's Business Bureau and vice-president of the Commercial and Industrial Bank of Memphis. Other civic and community interests are indicated by the name of the Everett Memorial Methodist Church, named in honor of him and his wife to whom he had been married 59 years at the time of her death.

Those of us who remember him as he took the floor in the TMA House of Delegates recall him as an outspoken orator and parliamentarian, and thereby one who wielded much influence in organized medicine of Tennessee. His love for the profession and his friends was jealously tended.

R. H. K.



AN EFFECTIVE TREATMENT FOR HERPES ZOSTER (SHINGLES)

For about forty years I have been treating Shingles with a treatment that was given to me by an older Doctor while I was serving my internship.

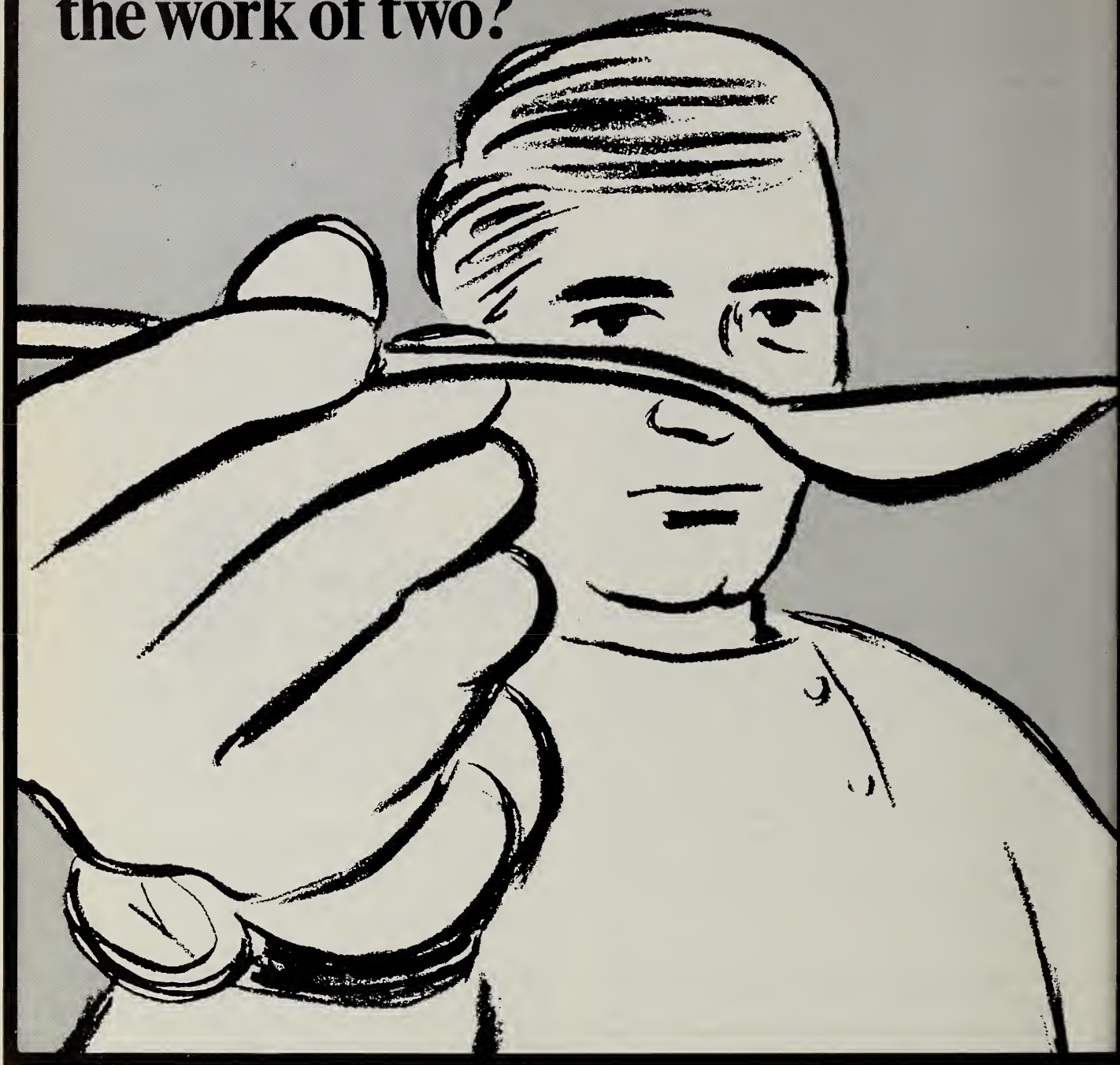
I have used this treatment on a great number of cases and I have never had it to fail or have there been any reactions of any kind to the drug. The patient is given 1cc *Surgical Pituitrin*, 1cc Thiamin Hydrochloride 100 Mcgs., and 1000 Mcgs. of B12, daily for three to four days, after the first injection the patient experiences a relief from the neuralgic pain associated with the illness. The lesions begin to dry and the redness disappears. With the second injection the patient is still improved and after the third one he has completely recovered.

For several years I used only the *Surgical Pituitrin*, but later added the B1 & B12. I use Parke-Davis *Surgical Pituitrin* but, I imagine other Pharmaceutical Houses manufacture a *Surgical Pituitrin*.

I certainly would like to pass this information along as I have heard many patients suffer extreme pain from this illness for months. I have not had any suffering after first injection. I believe it would be worth while to try it as I have found it most effective.

James T. Hayes, M.D.
Nashville, Tenn.

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antacids, and Bentyl® (dicyclomine
hydrochloride) too.

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IN MEMORIAM

Cupp, Horace B., Sr., Johnson City. Died August 12, 1970, Age 67. Graduate of University of Tennessee School of Medicine, 1929. Member of the Washington-Carter-Unicoi Medical Society.

Everett, H. B., Memphis. Died August 8, 1970, Age 86. Graduate of University of Tennessee School of Medicine, 1906. Member of the Memphis-Shelby County Medical Society.

Mason, Joseph W., Memphis. Died August 22, 1970, Age 83. Graduate of University of Tennessee School of Medicine, 1913. Member of the Memphis-Shelby County Medical Society.

Williams, G. Victor, Chattanooga. Died August 5, 1970, Age 89. Graduate of University of Louisville School of Medicine, 1904. Member of the Chattanooga-Hamilton County Medical Society.

Preas, William G., Johnson City. Died September 3, 1970, Age 65. Graduate of the Medical College of Virginia, 1929. Member of Washington-Carter-Unicoi County Medical Society.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES



New Members

The *Journal* takes the opportunity to welcome these new Tennessee Medical Association members.

CONSOLIDATED MEDICAL ASSEMBLY OF WEST TENNESSEE

William F. Burnett, M.D., Jackson
Rodrigo V. Tiongson, M.D., Bolivar

KNOXVILLE ACADEMY OF MEDICINE

Margaret H. Brooks, M.D., Philadelphia
Donald Catron, M.D., Knoxville
Jerry J. Embry, M.D., Knoxville
James R. Williams, M.D., Knoxville

MEMPHIS-SHELBY COUNTY MEDICAL SOCIETY

Jon C. Jenkins, M.D., Memphis

NASHVILLE ACADEMY OF MEDICINE

Thomas J. Davis, Jr., M.D., Nashville

NORTHWEST TENNESSEE ACADEMY OF MEDICINE

Harold Judd Sparling, Jr., M.D., Union City

ROANE-ANDERSON COUNTY MEDICAL SOCIETY

Charles Lynn Campbell, M.D., Oak Ridge
Tom Wendell Evans, M.D., Rockwood

Nashville Academy of Medicine

The Nashville Academy of Medicine held its September dinner meeting at Baptist Hospital in Nashville. The program dealt with the use of computers and allied mechanism by physicians and medical facilities Guy S. Longobardo, Ph.D., Director of the Medical Information Systems Department, Advanced Systems Development Division of IBM, was the principal speaker for the evening and his topic was "New Horizons in Clinical Decision Making."

NATIONAL NEWS

The Month In Washington (From Washington Office, AMA)

The Nixon Administration is drafting legislation that would eliminate the reason for physicians forming professional corporations for federal income tax advantages.

The legislation would remove the tax discrimination against self-employed physicians and other professionals in the tax treatment of retirement savings.

K. Martin Worthy, chief counsel of the Internal Revenue Service, said the legislation probably will be submitted to Congress next year as an Administration measure. He said the Administration intends to "remove the present discrimination between tax treatment of qualified plans for employees and qualified plans adopted by self-employed persons."

The IRS official said that it was unfortunate that disparate tax treatment of corporate employees and professionals has led to the adoption of state laws permitting the formation of professional corporations.

"The potential, if not actual, erosion of the traditional stringent professional standards and liabilities on the part of those

who form such organizations is, in my opinion, a highly undesirable by-product of this problem and its resolution to date," he told a meeting of lawyers. "The intervention of a legal entity between the doctor, lawyer, or accountant and his client would not appear to serve any social or public purposes."

Worthy warned that recognition of a professional organization is recognized as a corporation for tax purposes did not necessarily mean that the organization and its employees would have a clear track as far as securing the tax benefits which are desired.

Worthy said an important consideration to be weighed by the professional person is that the new tax act provides for a 50 percent maximum tax rate, after a transition period, upon "earned income," which includes earnings from personal services.

"In view of this new tax ceiling, it is questionable whether a professional person would find it as important as it was previously to achieve the tax deferral available as an employee covered by a qualified pension or profit sharing plan," he said.

The Board on Medicine of the National Academy of Sciences urged wide use of three types of physician's assistants as the quickest way to relieve the national shortage of doctors.

In a special report, the board called for the cooperation of the American Medical Association, the Association of American Medical Colleges and the government in developing physicians' assistants programs.

The AMA has been advocating use of physicians' assistants for some time. Dr. Walter C. Bornemeier, president of the AMA, recently said:

"We of the AMA believe the shortage (of physicians) can be dramatically relieved if the physician divests himself of functions which can be performed by assistants or associates. That relief would be provided, not in ten years, but as fast as assistants could be trained—no major legislation, no huge appropriations of money are required. We are certain the plan will result in better care for more people at a lower unit cost. Much of the training given to the assistants is, and would be in future pro-

grams, on-the-job instruction in the doctor's office.

"There is nothing revolutionary about this plan. Until 50 years ago, American doctors trained by working in the offices of established physicians. And even with the rise of university-affiliated medical colleges, we doctors continued to train the bulk of our non-professional nurses and office technicians."

The NAS board said that physicians' assistants could "extend the arms, legs and brains of the physician" by performing tasks that do not require the unique talents of the physician.

The three types of assistants recommended by the board were:

1) Physician's associate—the most highly trained type; would be qualified to do work that involves some independent medical judgment; under the physician's supervision, he could in some cases make a diagnosis and perform therapy, with the range of his responsibilities increasing as he develops new skills on the job.

2) Specialized assistant—would be highly skilled in one type of clinical specialty or procedure within a specialty (such as the operation of a renal dialysis unit); would receive most of his training from a physician specialist.

3) Non-specialized assistant—would be to medicine what the practical nurse is to nursing; could receive much of his training on the job.

As the AMA has been doing, the board cautioned against the premature enactment of licensing laws that would establish rigid job qualifications before the full potential usefulness of the assistants had been determined. The board report recommended a system of registration that would permit physicians to employ assistants who had completed an approved program or otherwise established their qualifications.

Possession of a high school diploma should be an adequate prerequisite for training to become physician's assistants, according to the NAS Board. It suggested varying amounts of education, clinical experience, and on-the-job training for the three types of assistants. For physician's associates, it recommended the equivalent

of two years of professional-level classroom and clinical work. Instruction should cover the basic sciences underlying medical practice, and clinical training should be "of essentially the same type and degree as that given medical students." Medical corpsmen, about 30,000 of whom are discharged from the military services each year, and other medical workers who enter the training program should be allowed credit for the clinical knowledge they already have acquired.

The American Medical Association opposed establishment of a national formulary that could restrict the prescribing practices of physicians with respect to federally supported medical programs.

In a letter of Sen. Russell B. Long (D., La.), chairman of the Senate Finance Committee, which was considering such legislation, Dr. Ernest B. Howard, executive vice president of the AMA, said:

"The American Medical Association, representing approximately 180,000 active private practitioners of medicine in America, is opposed to a proposal that would interfere with the professional judgment and responsibilities of physicians. The proposed amendment, which would give a Federal Formulary Committee the authority to *exclude* from the Formulary (and therefore from payment) any drug which it considers unnecessary is, in our opinion, just such an infringement upon the professional judgment of practicing physicians.

"The amendment would provide the Formulary Committee with authority to publish prescribing information about each drug listed. Adequate prescribing information to assist physicians in selecting the most rational course of therapy is available through a variety of acceptable sources. The proposed additional information is not only unnecessary but undesirable since physicians would be unable to deviate from that standard regardless of a particular patient's circumstances without facing the risk of malpractice liability.

"Further, the amendment would require that a physician who desires to prescribe the product of a particular manufacturer with which he had experience and confidence could do so only by writing in his

own handwriting the established name of the drug again and the name of the preferred manufacturer. We disagree with this practice limiting the authority of the physician to prescribe the drug of his choice. Our governing body, the AMA House of Delegates, has stated and reaffirmed on many occasions that physicians should be free to use either the generic (established) or brand name in writing prescriptions.

"In addition, the proposed amendment would have the Formulary Committee institute inspections, sample examinations and scientific review of drug products to be listed by the name of the supplier or the brand name. This task of the committee seems to be beyond its capability, particularly since it is constituted only on a part-time basis . . .

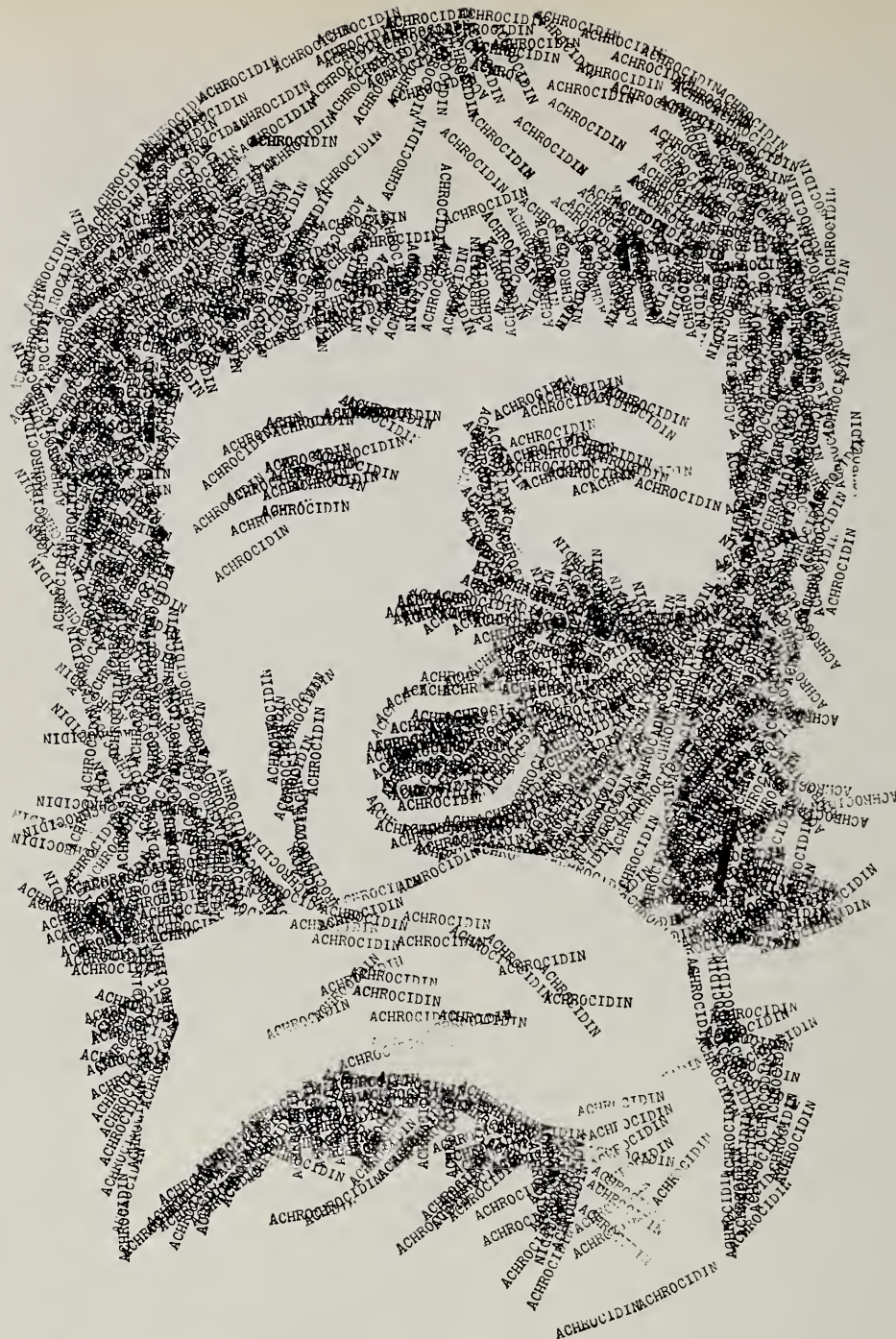
"We have said many times that we want our patients to receive high-quality drugs at the lowest possible cost. We continue in this position, more strongly than ever. But, we firmly believe that the creation of a national formulary would not bring about a more economical provision of drugs under programs established within the Department of Health, Education, and Welfare, now would it enhance the quality of these drugs."

* * *

The American Medical Association supported a senate-approved bill that would expand federal family planning services and population research activities.

In a statement submitted to the House Subcommittee on Public Health and Welfare, the AMA said it believes the establishment of an Office of Population Affairs under a deputy assistant secretary in the Department of Health, Education, and Welfare is highly desirable. The Office would make formula or special project grants relating to population and family planning; administer population and family planning research; act as a clearing house on domestic and international population family planning programs; provide liaison with other federal agencies; and support training for manpower in these programs.

The bill (S. 2108) also would authorize special projects for family planning ser-



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Tetracycline HCl—Antihistamine—Analgesic Compound

Each tablet contains: ACHROMYCIN[®] Tetracycline HCl 125 mg.; Phenacetin 120 mg.; Caffeine 30 mg.; Salicylamide 150 mg.; Chlorothen Citrate 25 mg.

ACHROCIDIN Tetracycline HCl—Antihistamine—Analgesic Compound Tablets and Syrup are recommended for the treatment of tetracycline-sensitive bacterial infection which may complicate vasomotor rhinitis, sinusitis and other allergic diseases of the upper respiratory tract, and for the concomitant symptomatic relief of headache and nasal congestion. For children and elderly patients you may prefer caffeine-free ACHROCIDIN Syrup. Each 5 cc contains: ACHROMYCIN Tetracycline equivalent to Tetracycline HCl 125 mg.; Phenacetin 120 mg.; Salicylamide 150 mg.; Ascorbic Acid (C) 25 mg.; Pyrilamine Maleate 15 mg.

Contraindications: Hypersensitivity to any component.

Warning: In renal impairment, since liver toxicity is possible, lower doses are indicated; during prolonged therapy consider serum level determinations. Photodynamic reaction to sunlight may occur in hypersensitive persons. Photosensitive individuals should avoid exposure; discontinue treatment if skin discomfort occurs.

Precautions: Drowsiness, anorexia, slight gastric distress can occur. In excessive drowsiness, consider longer dosage intervals. Persons

on full dosage should not operate vehicles. Nonsusceptible organisms may overgrow; treat superinfection appropriately. Treat beta-hemolytic streptococcal infections at least 10 days to help prevent rheumatic fever or acute glomerulonephritis. Tetracycline may form a stable calcium complex in bone-forming tissue and may cause dental staining during tooth development (last half of pregnancy, neonatal period, infancy, early childhood).

Adverse Reactions: *Gastrointestinal*—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. *Skin*—maculo-

pular and erythematous rashes; exfoliative dermatitis; photosensitivity; onycholysis, nail discoloration. *Kidney*—dose-related rise in BUN. *Hypersensitivity reactions*—urticaria, angioneurotic edema, anaphylaxis. *Intracranial*—bulging fontanels in young infants. *Teeth*—yellow-brown staining; enamel hypoplasia. *Blood*—anemia, thrombocytopenic purpura, neutropenia, eosinophilia. *Liver*—cholestasis at high dosage.

Upon adverse reaction, stop medication and treat appropriately.



LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York 10965

vices, formula grants for family planning, training and research grants, and grants for the construction and operation of population research centers.

The AMA said that there is an urgent need for a greatly expanded program of population research, as authorized by the legislation.

"If the worldwide population increase is to be controlled," the AMA said, "it will require more scientific knowledge of human behavior. We need more research on reproductive physiology, more demographic research, and more attitudinal and motivational research."

The AMA listed a number of obstacles to be overcome if a national program for population control is to be effective: education, religion, legal and economic considerations.

"The most formidable of these is lack of education," the AMA statement said. "Population control is only attainable when people first understand the nature of their own bodies."

Meantime, the Defense Department disclosed that a series of rulings this year had made it mandatory that U.S. military base hospitals throughout the world perform abortions and surgical sterilizations for armed forces personnel and their dependents regardless of state and local laws.

Dr. Louis M. Rousselot, assistant secretary of defense for health and environment, issued the rulings to clarify a policy that had been effective since 1966 but which some bases had not been following.

* * *

Five Republican senators introduced legislation that would establish a four-year federal program of family physician scholarships and fellowships to medical students and graduates who agree to practice in physician-shortage areas or to serve migratory agricultural workers.

For the first year, about 500 scholarships not to exceed \$5,000 and 200 fellowships would be offered at a cost of \$4.5 billion. The program would be expanded each year until by the fourth year 1,000 scholarships and 500 fellowships would be authorized for students and graduates agreeing to prac-

tice in isolated rural areas, migrant areas, city ghettos and Indian reservations with a shortage of physicians.

For each year of a scholarship, one year of service would be required. No additional service would be required under the fellowship part of the program.

Sen. George W. Murphy (R., Calif.) was chief sponsor of the legislation (S. 4208). Cosponsors were Sens. Peter H. Dominick (R., Colo.), Jacob K. Javits (R., N.Y.), Winston L. Prouty (R., Vt.) and William B. Saxbe (R., Ohio).

MEDICAL NEWS IN TENNESSEE

Meharry Medical College

Meharry Medical College has been awarded a federal grant of nearly \$3 million toward construction of a \$3.9 million laboratory-learning resources center. The funds will join a \$1.5 million grant made last year for the project by the Kresge Foundation of Detroit.

Location of the multipurpose center, which will probably begin construction in November with a completion target of June 1972, has been set tentatively for the center of the Meharry campus. The first floor of the 120,000 square foot center will include lecture rooms for combined medical and dental classes and community health education facilities, comprised of displays on health problems, bio-medical science exhibits, and other pertinent materials of interest to the community in general, especially high school and college students interested in health sciences.

The second and third floors will contain library materials, study and reading areas and other library learning aides. The fifth floor will house college administrative offices. The sixth floor will have an audio-visual department, automated teaching machines and production rooms for video tapes and television transmission for college students.

One of the special features of the center will be a computer linked retrieval system which will permit a person to ask the computer for the source of information on a

particular subject and the computer will indicate exactly which book, pages, and paragraphs contain the desired information.

Vanderbilt University School of Medicine

Dr. Earl W. Sutherland, discoverer of Cyclic AMP, and his colleague, Dr. G. Alan Robison are co-chairmen of the first Gordon Research Conference on Cyclic AMP being held this week in Plymouth, New Hampshire.

Career Investigator for the American Heart Association, Dr. Sutherland is Professor of Physiology at Vanderbilt; Dr. Robison is Associate Professor of Pharmacology and Physiology.

Cyclic AMP, or cyclic adenylylate, is a biologic and biochemical mechanism important in the action of hormones. Cyclic AMP seems to mediate or control the action of a variety of hormones. Different hormones are produced by the adrenals, the sex glands, the pituitary and other glands.

An understanding of how hormones and Cyclic AMP actually works at the molecular level could lead to new controls over health and disease.

PERSONAL NEWS

Dr. Van Fletcher, Chattanooga, was recently appointed Secretary-Treasurer of the Blue Cross-Blue Shield of Tennessee. **Dr. Fletcher** has been a member of the Blue Cross-Blue Shield Board of Directors since 1961 and is replacing **Dr. Henry Kirby-Smith**, who recently resigned after 13 years as a board member.

Dr. Rollin A. Daniel, Jr., Nashville, has been named the first full-time Chief of Surgery at the St. Thomas Hospital in Nashville. The post of Chief of Surgery was previously filled on a part-time basis by members of the surgical staff.

Drs. Robert H. Hutcheson, Jr., Nashville, and **Jack C. Clark**, Lafayette, have been appointed to the Governor's Advisory Council on Mental Retardation. **Dr. Hutcheson** was also a program participant at the recent 20th Annual Postgraduate Obstetrical-Pediatric Seminar in Ft. Lauderdale, Florida. He is the Director of the Division of Family Health Services for the state department of Public Health in Nashville.

Dr. James F. Crawley, Jr., has joined **Drs. John Higginson, John Crowell** and **Myron J.**

Szczukowski in the practice of radiology in Chattanooga. **Dr. Crawley** is a graduate of the University of Tennessee College of Medicine and served his internship and residency training at the Methodist Hospital in Memphis.

Dr. David Beavers, formerly of Gallatin, has assumed duties as the first full-time Pathologist at the Cookeville General Hospital.

Dr. R. H. Kampmeier, Nashville, gave The William S. Middleton Lecture at the Wisconsin Regional Meeting of the American College of Physicians on September 18—his title, "The Past—Guide-post, Not Hitching-post."

Dr. John L. Sawyers, Nashville, has been elected President of the Middle Tennessee Chapter of the Easter Seal Society. **Dr. Sawyers** is Chief of Surgery at the Nashville General Hospital.

Dr. Edgar D. Akin, Chattanooga, has been appointed to the full-time staff at Newell Clinic and Hospital where he will be engaged in the practice of surgery with **Dr. Edward T. Newell, Jr.**, a past president of TMA. **Dr. Akin** will also be an associate of **Drs. J. Marsh Frere, Sr., Robert E. Mabe, Nat H. Swann** and **Wallace D. Grissom**.

Dr. R. C. Kimbrough, Madisonville, has been awarded a commendation by President Nixon "in recognition of exceptional services to others, in the finest American tradition." **Dr. Kimbrough**, who has practiced medicine in Tennessee for 62 years, was TMA's 1970 Physician of the Year.

Dr. James Hudgens, Nashville, was guest speaker at a recent meeting of the American Business Women's Association in Nashville. He presented slides to illustrate his work as a medical missionary in the Andes Mountains of Bolivia.

Dr. Noel C. Hunt III, Chattanooga, has joined **Dr. Philip H. Livingston** in the practice of cardiovascular diseases.

Dr. S. W. Turney has joined the Miller Clinic, Nashville, for the practice of general and thoracic surgery.

Drs. John F. Boxell and **Hathaway K. Harvey** have joined **Dr. Charles H. Alper** and **Dr. John T. Evans** in the practice of Otolaryngology in Chattanooga.

ANNOUNCEMENTS

Calendar of Meetings 1970-71

State

Oct. 19-20

Tennessee Valley Medical Assembly, 18th Annual, Read House, Chattanooga

- Nov. 4-6 Tennessee Academy of General Practice, 22nd Annual Meeting and Scientific Assembly, Civic Auditorium, Gatlinburg
- Nov. 6-7 National Conference on Management of Occlusive Arterial Disease, Underwood Auditorium, Vanderbilt University, Nashville, Tenn.
- Nov. 19 Middle Tennessee Medical Association, Dickson
- National**
- Oct. 25-29 American Association of Blood Banks, San Francisco Hilton, San Francisco
- Oct. 25-30 American College of Chest Physicians, Century Plaza Hotel, Los Angeles
- Oct. 29-Nov. 2 Association of American Medical Colleges, Biltmore Hotel, Los Angeles
- Nov. 10-17 American Heart Association, Shelburne-Dennis Hotel, Atlantic City, New Jersey
- Nov. 16-19 Southern Medical Association, 64th Annual Meeting, Dallas Memorial Auditorium, Dallas
- Nov. 29-Dec. 2 American Medical Association, (Clinical Convention), Boston
- Dec. 5-10 American Academy of Dermatology, Palmer House, Chicago
- Dec. 7-9 Southern Surgical Association, Boca Raton Hotel, Boca Raton, Fla.
- Dec. 9-12 American Academy of Cerebral Palsy, Shamrock-Hilton, Houston
- Jan. 2-21 American College of Surgeons, Scientific Winter Cruise, combined with sectional meetings, Panama City, Caracas, and San Juan
- Jan. 29-31 Southern Radiological Conference, Grand Hotel, Point Clear, Ala.
- Feb. 3-7 American College of Cardiology, Sheraton Park Hotel, Washington, D.C.
- Feb. 8-10 American Academy of Occupational Medicine, Park Sheraton Hotel, New York

Orthopedic Surgeons Sponsor Emergency Care Course

The first practical course in "Emergency Care and Transportation of the Sick and Injured" will be held on November 19-21 at the College of Health, East Tennessee State University, in Johnson City, Tennessee. The course will be

sponsored by the American Academy of Orthopedic surgeons.

Invited to attend the three day course of lectures and practical demonstration are ambulance attendants, firemen, policemen, nurses, members of volunteer rescue squads, public health, civil defense, and other officials dealing with the sick and injured.

Dr. Sam W. Huddleston, Johnson City Orthopedic surgeon, is chairman of the advanced training meeting to be held in cooperation with East Tennessee State University, the Tri-City Orthopedic Society, and the medical staff of Memorial Hospital in Johnson City.

To furnish instruction, physicians and first aid experts will speak and demonstrate on a wide range of subjects, including shock, resuscitation, cardiac massage, wound dressing, splinting of fractures, and other medical emergencies. Emergency child-birth, water rescue, electrical safety, even the legal aspect of emergency medical care will be discussed. Demonstrations of how to extricate victims from crushed autos and use of rescue equipment will be given.

For information and registration forms, please contact Sam W. Huddleston, M.D. 202 West Fairview, Johnson City, Tennessee 37601.

Regional Continuing Education Courses

The following are continuing education courses which will be held within the region:

—The Department of Pediatrics of the University of Louisville School of Medicine will present its Fourth Annual Newborn Symposium on November 5-6. Participants will be Drs. Marvin Cornblath, Louis Gluck, Harry S. Gordon, Charles Lowe, Grant Morrow, III, Gerard B. Odell, Leo Stern, Robert Usher and the faculty of the department of pediatrics. For further information, write: Billy F. Andrews, M.D., Professor and Chairman, Department of Pediatrics, 226 East Chestnut Street, Louisville, Kentucky 40202.

—The University of Miami School of Medicine, Department of Otolaryngology, is presenting a post-graduate course entitled "Otolaryngology for the Family Practitioner." The course will be held November 13-14, 1970 at the Sheraton Four Ambassadors Hotel in Miami, Florida and is accredited by the AAGP. For information write: Fredric W. Pullen, M.D., Neuro-Otologic Laboratory, University of Miami School of Medicine, P. O. Box 875, Miami, Florida 33152.

—The University of Florida College of Medicine in Gainesville will present a course entitled "Seminar in Obstetrics and Gynecology" on November 19-20, 1970. Guest speakers include: Lawrence L. Hester, Professor and Chairman, Department of Obstetrics and Gynecology in South Carolina; and William N. Thornton, Jr., M.D., Professor and Chairman, Department of Obstetrics and Gynecology, University of Virginia School of Medicine. For further informa-

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tion contact: Division of Postgraduate education, J. Hillis Miller Health Center, Box 758, College of Medicine, Gainesville, Florida 32601.

—On December 18 and 19, 1970 a course entitled "Practical Ophthalmology for the Primary Physician" will be given at the University of Kentucky Medical Center. This two day course for generalists in medicine, pediatrics, and family medicine will review common problems in ophthalmologic diagnosis and management. Practical methods will be stressed. Criteria will be given for identifying patients requiring specialized care. For further information regarding this program, contact: Frank R. Lemon, M.D., Associate Dean, Continuing Education, College of Medicine of Kentucky, Lexington, Kentucky 40506.

American Heart Association

New booklets have been issued in the Association's Monograph Series as follows: Volume 27, "Research on Acute Myocardial Infarction," reports on a symposium to identify and promulgate promising concepts for investigation in the still

unknown areas of the disease. The volume was edited by Stuart Bondurant; Volume 28, "Mass Field Trials of the Diet-Heart Question—Their Significance, Timeliness, Feasibility and Applicability," is an assessment of seven proposed experimental designs by the National Heart Institute's Diet-Heart Review Panel, chaired by Edward H. Ahrens;

"Reducing the Risk of Coronary and Hypertensive Disease," the book stems from the Minnesota Symposium on Prevention in Cardiology which the Minnesota Heart Association sponsored in cooperation with the Mayo Clinic, Mayo Foundation, University of Minnesota, and American Heart Association's Council on Clinical Cardiology, edited by Henry Blackburn and Jennifer Willis, the book's 25 articles cover the several risk factors and provide practical suggestions for reducing the risk by controlling hypertension, diet, obesity, cigarette smoking and physical activity.

Copies may be obtained through local Heart groups or the AHA's Distribution Department, 44 E. 23rd St., New York, N.Y. 10010.

* * *

IMPORTANT NOTICE!

The Tennessee Pharmaceutical Association has contacted the Tennessee Medical Association concerning a serious dilemma involving the physician's signature on Class "A" narcotic prescription blanks.

According to Regulation No. 151.397 issued pursuant to the Federal Statute, 26 USCA 4705, referred to in the Tennessee Code Annotated 52-1307:

"It is illegal for a pharmacist to fill a prescription for a Class "A" narcotic drug unless he has the signed prescription blank in his hand or in an emergency, it is presented to his agent when the medication is delivered to the patient."

Over an extended period some pharmacists, as an accommodation to both the patient and the physician, have taken some prescriptions over the telephone and mailed the prescription blanks to the physician for his signature. This is a violation of the regulation by both the pharmacist who fills the prescription and the physician who gives

the prescription to the pharmacist. Regulation No. 151.393 makes both the practitioner and the pharmacist liable for the penalties prescribed by violation of the law.

Recently in Tennessee, a pharmacist was found to have unsigned Class "A" narcotic prescription blanks in his file and was required to either surrender all of his narcotics and dangerous drug inventory and his narcotic permit for thirty days or face court action by narcotic agents. These agents indicated that the physician involved in these violations will also be investigated.

It is most important that physicians be familiar with this requirement and furnish the pharmacist with the lawfully required signed prescription blanks.

Therefore, please cooperate with your pharmacist in furnishing the signed narcotic drug prescription blanks in order that further violations of this type can be avoided.

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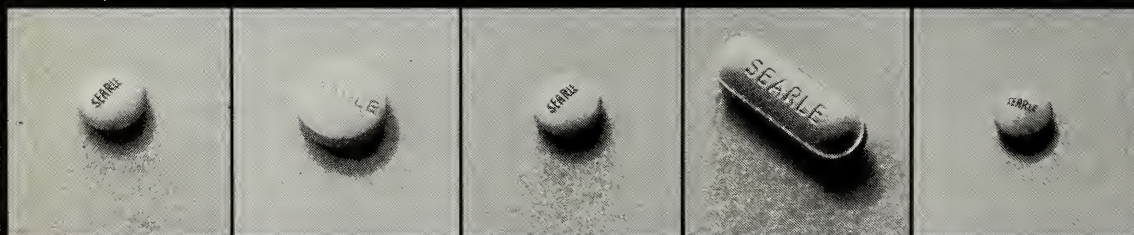
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THE VIEWING BOX

Physicians On Hospital Governing Boards

L. O. SIMENSTAD, M.D., *Trustee*
American Medical Association
OSCEOLA, WISCONSIN

In each of the past several years, the AMA House of Delegates has adopted one or more resolutions urging the AMA Commissioners to the Joint Commission on Accreditation of Hospitals to promote the adoption by the Joint Commission of an accreditation standard that would require either: (1) that there be physician representation on the governing boards of hospitals, (2) that the physician representation be from the medical staff of the hospital, or (3) that that medical staff representation be by physicians elected by the medical staff.

Full voting rights have been asked for those physicians representing the medical staff. And it has been stated that the physician or physicians so elected or appointed should be willing and able to carry out the functions of the office.

Staff Representation

The AMA Commissioners have been responsive to these wishes of the House of Delegates and have urged that such medical staff representation be a requirement for accreditation.

Important progress has been made toward this goal. At the August 9, 1969 meeting of the Board of Commissioners, the following statement was included in the interpretive material under the first standard applicable to the governing body:

Physicians who are members of the Medical Staff, where legally permissible, shall be eligible for, and should be included in the membership of the hospital governing body in the same manner as are all other knowledgeable and effective individuals. Other physicians also should be considered eligible for membership on the governing body.

The Glossary of the new draft of the Standards defines "should" as reflecting: "a desirable but not mandatory practice that

produces compliance with the standard and does not eliminate alternative or innovative courses of action."

Interpretative Material

What the Joint Commission is thus now saying to hospitals in the interpretive material is that, where it is legally permissible, members of the medical staff must not be discriminated against as regards eligibility for membership on the governing board; however, it is not mandatory that there be medical staff representation on the governing body.

It should be pointed out that that interpretive material is presently accepted only for field testing. Presumably, finalized versions of the interpretive material will be adopted at the December meeting of the Board of Commissioners.

Regardless of the action of the Joint Commission, however, physicians are going to be welcomed more and more frequently on governing boards of hospitals.

I have read that, at the recent annual meeting of the American Hospital Association, there was strong reaction to the inclusion in the Standards of the interpretive language that I quoted above. But, at the joint meeting of state hospital and medical society representatives that were held in Chicago in February and March of 1969 to discuss an earlier draft of the Standards, a number of hospital people stated that they would welcome physicians on their governing boards.

The reasons are quite plain. Hospitals, today, are involved in a wide variety of programs where decisions cannot be logically reached without the advice of physicians. To name but a few, these include Regional Medical Programs, comprehensive health planning, Medicare and Medicaid. When a

hospital is planning its role in effectively delivering health services to a community, it would seem that its medical staff must be intimately involved, not just because physicians more than any other group have a concerned awareness of the medical needs of the community, but because physician advice may prevent costly errors in the planning, development and operation of new facilities and services.

Corporate Responsibility

Another reason for medical staff representation on hospital governing boards stems from corporate responsibility of the hospital for the quality of the medical care delivered in the institution. The measure of the degree to which the hospital fulfills this responsibility is twofold. First is effectiveness of its organized medical staff to provide the necessary supervision essential to the maintenance of high quality medical care. Second is the excellence of hospital management. And as was stated in the 1964 Report on Physician Hospital Relations:

the excellence of hospital management is not solely the responsibility of the governing authority and administration. The medical staff is responsible for much of the hospital's income and expense; therefore, it must be concerned with, and share responsibility for, the quality and efficacy of the total management of the hospital.

Physicians cannot remain aloof from the hospital management structure. All too frequently, the nonpresence of a member of the medical staff on the governing board of a hospital is because the medical staff has not requested representation. This is one fact of the problem that I hope medical staffs everywhere will rectify.

At this point, I think it should be noted that the policy of the American Hospital Association has long been that "Members of the medical staff can be members of the hospital governing board." This was a position taken by the AHA Board of Trustees in 1953 when it joined with the AMA Trustees in a joint statement on physician-hospital relations. Governing board membership was one of four listed alternatives to insure that the medical staff has access to the governing board.

It is this question of access or the assur-

ance of effective communication between the governing board and the medical staff that is of prime importance today, perhaps of even greater importance than it was in 1953.

It is the policy of the American Medical Association that this liaison, this communication, is most effectively carried out when an elected representative of the medical staff is on the governing board.

*(From the Massachusetts Physician—
January 1970)*

As the Twig Is Bent . . . By a Unionized Teacher

Pushing children ahead of advancing riflemen to serve as a human shield for the attackers is an oriental tactic not unknown to modern warfare. Unionized school teachers who subvert young minds with the propaganda spawned by organized labor headquarters for classroom use are guilty of a crime lesser only in degree.

When teachers joined forces with hod carriers, either in the CIO-AFL or the Teamsters, only the naive could assume that their card-carrying affiliation wouldn't make a travesty of the honor, integrity, dedication and professional pride that once were essential ingredients of the teaching art.

Teachers, lobbying for higher pay and added benefits, remind parents that their "most precious possessions" are daily entrusted to the teachers' custody. That is true, of course. And the over-burdened, tax-paying parents also have a right to expect that the teachers will honor an obligation that is actually a trust, namely, "to teach the child with due regard to honesty, objectivity, and fairness in all subjects."

This concept can't endure when teachers join labor organizations. Now, exceptions will have to be made to that fundamental doctrine of "due regard to honesty, objectivity and fairness." Teachers paying dues to Mr. Hoffa's heirs and their ilk can be expected to attack the capitalistic system, free enterprise, sound currency and balanced governmental budgets.

Parents concerned by the flow of pornography and smut now being purveyed to

the young minds have equal reason to resent a recent union ploy among member-teachers in New York. During the prolonged General Electric Company strike when a major American corporation was being subjected to every form of union reprisal for its refusal to abjectly surrender to union threats, the dear teachers even got into the act. The New York AFL-CIO teachers were exposed to a background piece on the G. E. strike. It was carried in *The United Teachers*, official party organ promoting the official party line of the United Federation of Teachers.

Among other things, the piece revealed that "lesson plans" had been devised by the union for use in the classrooms by teachers who wished to enlarge upon the G.E. strike theme. The lesson plan cited statistics, percentages of profit increases for G.E. versus wage increases for workers, and a lot of other purposeful misrepresentations.

Forgetting for a moment a lack of ethics, if any teachers were so ignorant of the economic facts of life that he or she would dare to peddle these distortions and false conclusions, such a teacher should be barred from every class, including finger-painting for pre-schoolers. And if any teacher knew better, but could be perfidious enough to unload such patent untruths upon impres-

sionable pupils, then such a teacher should be kicked bodily out of the profession—if, indeed, it is still a profession.

Unions demand loyalty. They demand compliance with the dictates from the labor temple or the plush Washington headquarters. Teachers who finally put down their picket signs to resume classroom duties after a strike can hardly be expected to rebel against orders from the international, or even from the local.

How tragic that young people can become hooked on hard drugs and turn into "junkies." How tragic that teachers can become "hooked on labor propaganda" and become intellectual junkies. We respectfully insist that teachers who join organized labor to further their own objectives cannot retain that intellectual freedom which they claim is so essential to the academic world. Will they learn the art of scattering roofing nails in driveways, slashing tires, shooting out transformers, telephoning threats, screaming "scab" and other little niceties that, alas, go with so many strikes? Even those activities are less heinous than teaching untruths to children.

—W. L. Thornton, *President*—(Reprinted from *SSIC Bulletin*, March 15, 1970)

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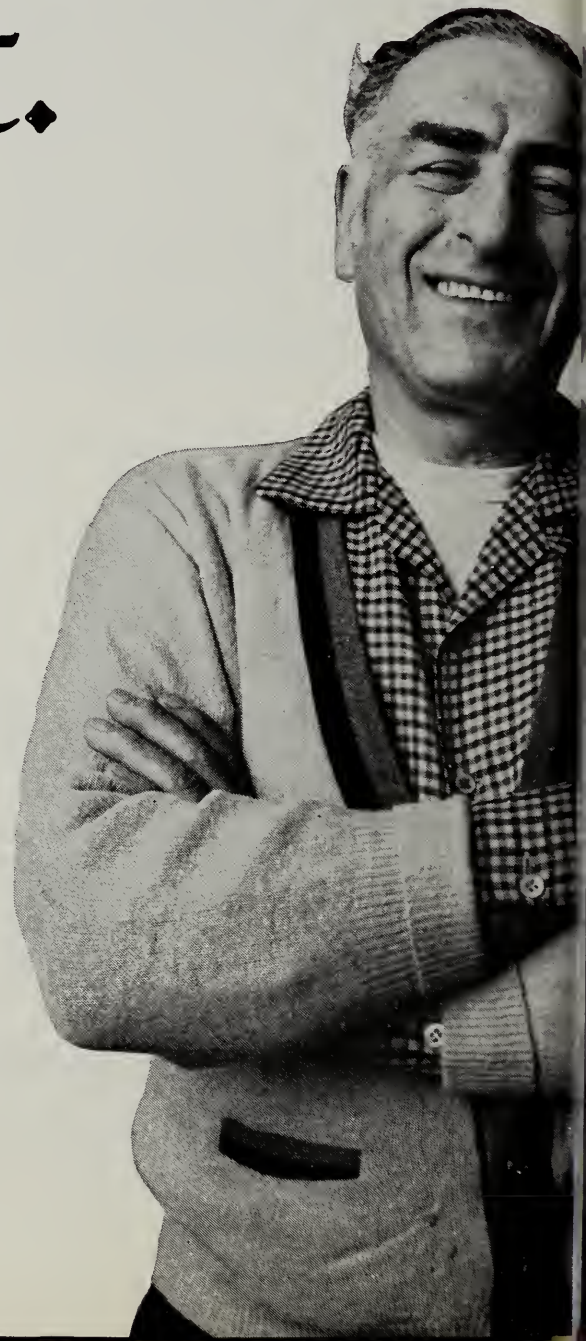
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Instructions to Contributors

Manuscripts submitted for consideration for publication in the JOURNAL OF THE TENNESSEE MEDICAL ASSOCIATION should be addressed to the Editor, Dr. R. H. Kampmeier, Vanderbilt University Hospital, Nashville, Tennessee 37203.

Manuscripts must be typewritten on one side of letter-weight paper. Either double or triple spacing and wide margins must be provided to facilitate editing which will be legible for the printer.

Bibliographic references should not exceed twenty in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to the style used in the American Medical Association publications, as, —Alais, F. G.: What Is Known About it, J. Tennessee M. A., 35:132, 1950.

Illustrations should be mounted on white cardboard, numbered and identified with the author's name. The editor will determine the number, if any, of illustrations to be used with the Journal assuming the cost of engravings and cuts up to \$25. Engraving cost for illustrations in excess of \$25 will be billed to the author.

If reprints are wanted, the desired number should be indicated in the letter accompanying the manuscript. No reprints are provided free and a reprint cost schedule will be forwarded upon request.

Studies of the amniotic fluid are being extended constantly. New applicable techniques are permitting the gathering of information in regard to fetal and maternal health during pregnancy. The authors review the several studies now feasible on amniotic fluid.

AMNIOCENTESIS: Its Diagnostic and Research Applications*

ARTHUR T. FORT, M.D. AND ANNE S. ROBERTS, M.D., Memphis, Tenn.

Introduction

Reproduction was regarded as entirely a waiting game until just three decades ago. Mother, father, medical attendant, and any other interested parties spent 9 months patiently awaiting the outcome. If the outcome proved successful, all concerned, including the medical attendant, were quick to claim credit. If the outcome proved to be unfortunate then God, evil influence, or the in-laws were left unchallenged in sharing the blame.

Within the past three decades the rules of the game have begun to change. It has become increasingly evident that neither the mother nor the medical attendant need always accept the outcome of reproduction so passively. Understandable causes of reproductive misfortune are emerging and, moreover, many of these causes are potentially modifiable or avoidable although some are not. For example, inherent fetal defects such as chromosomal or enzymatic aberrations remain outside our range of alteration while the environment that the mother provides for fetal development is potentially within our scope of modification or simulation.

Broadly, the environmental abnormalities fall into two categories:

- (1) Inadequacy—placental insufficiency
maternal malnutrition
maternal disease
- (2) Hostility—maternofetal isoimmunization
maternal drug ingestion
maternal infections

Although notably significant, the formulation of these concepts of environmental failure and environmental hostility have resulted in few reliable techniques for identifying such failure or hostility antepartum. Therefore, we are far more capable of imagining treatment than delivering it. Even in our imagination therapeutic possibilities for the foreseeable future seem limited to either modification of the intrauterine environment or extraction of the fetus if the environmental modification proves inadequate. Direct treatment of the fetus probably will remain limited to isoimmunization. Furthermore, how is one to determine from the long term fetal point of view, if measures directed at improving the maternal environment are actually accomplishing their purpose? To current students of reproduction goes the challenge of solving these problems by actually determining the sufficiency and safety of the intrauterine environment, the state of fetal health, and fetal maturity. One response to this challenge has been an unabashed intrusion into the once sacrosanct amniotic sac. This paper will briefly review some of the diagnostic applications of this intrusion called amniocentesis.

Technique of Amniocentesis

Simply stated, a 22 gauge spinal needle is introduced into the amniotic sac after traversing in order: an anesthetized skin wheal, the maternal abdominal wall, the uterus, and the chorioamnion. Just how painful is this procedure? In answer—many patients say an intravenous aspiration is worse. Anxiety about pain apparently far exceeds the actual pain.

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How hazardous is the technique to the mother? Theoretically, maternal infection is a possibility but has not been reported in many large series where amniocentesis was employed only for diagnosis. Freda¹ reported over 5000 amniocenteses without infection. Queenan² did report that 10% of 584 patients undergoing intrauterine transfusion showed infection, but in most cases in which infection occurred the fetus was moribund or dead. What sort of culture media is amniotic fluid? Galaske and Synder³ found amniotic fluid to inhibit bacterial growth, even when enriched with casein hydrolysate. Florman and Teubner⁴ found that amniotic fluid poorly supported bacterial growth until meconium was added. The meconium seemed to enhance bacterial growth. On the contrary Walsh, Hildebrandt, and Prystowsky⁵ could not demonstrate inhibition of bacteria inoculated into amniotic fluid. Although other studies could be cited, extensive clinical experience indicates that injection of hypertonic solutions and intrauterine transfusion, especially in the presence of a dead or moribund fetus, are the only situations where sepsis is a significant risk of amniocentesis.

How hazardous is amniocentesis to the fetus? Direct fetal damage has not been reported except when the fetus has been subjected to intrauterine transfusion or a radiopaque medium has inadvertently been injected into the fetal subcutaneous tissues. Indirect damage to the fetus has been far more frequent. Such as the not unusual possibility of creating fetomaternal bleeding which may result in increased maternal antibodies against fetal erythrocytes. Far more infrequent is the laceration of a placental vein leading to fetal exsanguination.

Diagnosis by Amniocentesis

Amniotic Fluid Volume. The exact determinants of amniotic fluid volume are unknown, but clinical relationships between fetal conditions and oligohydramnios are known. Fetal renal agenesis is a well established example of a clinical condition almost always accompanied by oligohydramnios. More recently post-term pregnancies associated with fetal malnutrition

have been found to be accompanied by oligohydramnios. Since toxemia of pregnancy and chronic maternal hypertensive cardiovascular disease often cause decreased placental function and fetal malnutrition, oligohydramnios might be identified earlier in the course of these maternal diseases as an indicator of failing placental function. This reasoning led Elliott and Inman⁶ to determine amniotic fluid volume in the last trimester of pregnancy associated with hypertension and in normals. They employed a dye dilution technique with Coomassie blue to document that normally amniotic fluid volume increases up to 37 weeks gestation, then declines rapidly as term arrives. In severe preeclampsia and essential hypertension they noted less volume and an earlier decline. Other studies have more or less confirmed these results and shown that dye dilution techniques are accurate and not particularly difficult to do.

Amniotic Fluid Protein. The concentration of amniotic fluid protein is much below that of serum. Albumin is the major component constituting at least 50% of the total. The concentration of protein in amniotic fluid increases along with bilirubin in the face of severe erythroblastosis, while in normal gestations the concentration of both amniotic fluid bilirubin and protein declines to barely measurable levels at term. Globulins are also present in amniotic fluid, constituting a small proportion of the total. The globulins normally tend to decline near term, keeping the same relative proportion to albumin. Gamma globulin (IgG) gets into amniotic fluid only when severe maternal anti-Rh sensitization has occurred and is closely related to fetal illness. However, anti-Rh IgG may appear in amniotic fluid even though the fetus is Rh negative, although it is unlikely to ever reach the levels seen with an ill fetus. It is not possible to predict amniotic fluid anti-Rh titers from the maternal titer.

Human placental lactogen (HPL) is also present in amniotic fluid. Josimovich⁷ measured maternal serum and amniotic fluid HPL levels serially in 19 patients with histories of Rh sensitization. In those cases terminating with a healthy fetus there was

a "divergence" between maternal serum and amniotic fluid concentrations of HPL caused by a declining amniotic fluid level. In those cases where the fetus was severely affected there was a "convergence" as the amniotic fluid concentration rose rather than declined.

Just how does protein get into the amniotic fluid and what determines its concentration? Labeled albumin readily passes from mother to amniotic fluid even in excess of the quantity getting to fetal plasma. Ruoslahti, Tallbery and Seppala⁸ investigated the origin of amniotic fluid Gc and L-2 proteins whose genetic roots could be traced and found them to be maternal in origin. IgG gets into amniotic fluid when maternal serum titers are high and the size of this molecule would most likely preclude its excretion by the fetal kidney into the amniotic fluid. Therefore, the most plausible theory for the origin of amniotic fluid protein, from the evidence available is that it perfuses from the intraplacental and uterine blood flowing adjacent to the amniotic sac.

The concentration of amniotic fluid protein normally declines as does amniotic fluid volume as term approaches. When the fetus is ill the decline reverses. Why? In answer, it seems plausible that the fetal illness interferes with fetal ingestion of amniotic fluid allowing an accumulation of protein and amniotic fluid as hydramnios is also associated with fetal illness. If this hypothesis is correct it is the egress of amniotic fluid that controls its accumulation. Standing in immediate opposition to this hypothesis are the data showing that the volume of amniotic fluid never reaches its usual value in chronic placental insufficiency even though the fetus is ill. Perhaps in placental insufficiency the rate of transfer from mother to fetus may be diminished. It has been shown that fetomaternal transfer of drugs is reduced in conditions associated with chronic placental insufficiency.

The hypothesis must then be modified to state that both maternal amniotic fluid transfer and fetal swallowing effect the accumulation of amniotic fluid and amniotic fluid protein. However, the transfer into

the amniotic sac is the most important factor in chronic placental insufficiency while fetal ingestion is the most important in Rh isoimmunization, acute fetal distress, and probably diabetes mellitus where hydramnios is often seen.

Amniotic Fluid Bilirubin. This pigment released in the degradation of hemoglobin has received a great deal of attention in recent years as an index of fetal hemolysis in Rh isoimmunization and fetal maturity estimation. It is not the absolute quantity of bilirubin but the spectrophotometric absorption pattern that more nearly reflects the state of fetal health. Bevis⁹ first described the pattern seen in Rh isoimmunization where a "bulge" in absorption is seen from 450 to 460 $m\mu$ extending outward from a background of absorption between 375 to 525 $m\mu$ that is normally present in amniotic fluid. This bulge is observed in all pregnancies at the beginning of the third trimester but declines as term approaches unless erythroblastosis is present. This bulge is created by unconjugated (indirect) bilirubin in the amniotic fluid. Many theories as to the route of this unconjugated bilirubin takes in getting into the amniotic fluid have been proposed. The most plausible is that unconjugated bilirubin simply diffuses from the intraplacental or uterine maternal blood into the amniotic sac. In support of this theory, Bashore¹⁰ clearly demonstrated the bidirectional movement of unconjugated bilirubin through placentas of rhesus monkeys. Furthermore, conditions characterized by maternal hyperbilirubinemia, sickle cell crisis and intrahepatic cholestatic jaundice of pregnancy or fetal upper gastrointestinal obstruction, have all been reported to be associated with increased unconjugated bilirubin in the amniotic fluid. Once in amniotic fluid, what determines the rate of accumulation? Again, as in protein accumulation, fetal ingestion is probably the most important factor. Indirect bilirubin swallowed by the fetus can readily pass through the fetal intestine into the fetal blood stream and be carried to the placenta for rapid disposal. In erythroblastosis fetalis due to fetal hemolysis an excess of indirect bilirubin arrives at the placenta.

A small amount of this bilirubin then diffuses into the amniotic sac. The fetus swallows poorly because of the erythroblastosis and therefore the bilirubin accumulates. The same mechanism of accumulation probably also operates in immature fetuses who also have elevated levels of amniotic fluid bilirubin.

Amniotic Fluid Steroids. The steroids found in amniotic fluid probably have resulted directly from fetal metabolic and excretory efforts so that they are potentially one of the most direct indices of fetal health and maturity. Neither fetus nor placenta are complete steroidogenic systems capable of elaborating finished steroids from acetate. However, they supplement each other and the fetal adrenals are supplied by the placenta with the precursor steroids it needs to produce corticosteroids while the placenta is supplied by the fetus with the precursor for its major estrogen, estriol. The fetal liver is active in the disposal of the potent steroids produced by the fetal adrenal. They are conjugated by sulfurylation, 16 alpha hydroxylation, and to a minor extent by glucuronylation or, if unconjugated, readily diffuse through the placenta to be carried away by the mother. The steroids being extensively conjugated, unlike bilirubin, are excreted by the kidneys into the amniotic fluid. What can be learned from the quantity and conjugation of amniotic fluid steroids? To begin with, Schindler and Siiteri¹¹ found that dehydroepiandrosterone, a product of the fetal adrenal, existed principally as a sulfate, with the 16-alpha-OH-dehydroepiandrosterone conjugate being next in order. The fetal liver is capable of sulfurylation, 16 alpha hydroxylation of C-19 and C-18 steroids, 15-alpha hydroxylation and probably, some glucuronidation while the placenta lacks these capabilities. Therefore, it is likely that the quantity of the various conjugates of dehydroepiandrosterone is a direct reflection of fetal hepatic and adrenal function. On the other hand, unconjugated steroids of the amniotic fluid probably arrived in the amniotic fluid by diffusion from the intraplacental or uterine circulation and could represent either maternal or

fetal efforts. The placenta is rich in sulfatase and 16-alpha hydroxylase. Further support of this concept are the results of a study by Schindler and Ratanasopa¹² comparing amniotic fluid estriol, 16-ketoandrostenediol, 16-alpha hydroxydehydroepiandrosterone, dehydroepiandrosterone, and pregnanediol in normal patients and those with Rh isoimmunization. In severe erythroblastosis they found that 16-alpha-OH-dehydroepiandrosterone and 16-ketoandrostenediol could not be detected, perhaps indicating the liver failure of these fetuses. A small amount of estriol and usual amounts of dehydroepiandrosterone and pregnanediol were present, all of which could have diffused from the intraplacental or uterine blood irrespective of fetal liver function.

The area of amniotic fluid steroids is ripe for exploration but is unfortunately limited by the difficult biochemical methodology required.

The only clinical use thus far has been antepartum detection of a fetus with the adrenogenital syndrome.

Amniotic Fluid Cytology. The fetus obviously exfoliates cells from his many surfaces in contact with amniotic fluid. These cells can be harvested by amniocentesis for culture, enzymology, karyotyping, and morphologic examination. What has been learned so far from amniotic fluid cytology?

Cytologists can interpret fetal sex chromatin correctly 95% of the time. Successful culturing of cells yields cells suitable for karyotyping in a majority of cases. From these karyotypes one can diagnose translocation disorders such as Down's Syndrome. Certain metabolic disorders of the fetus can be identified from analysis of enzymes in the amniotic fluid cell. For example, galactose-1-phosphate uridyltransferase and other enzymes of amniotic fluid cells have been measured. Amourotic familial idiocy (Tay-Sacks Disease) has been diagnosed prenatally by demonstrating a deficiency of hexosaminidase A in fetal cells.

An increasing number of studies of amniotic fluid cytomorphology has been published. The majority of cells are squamous epithelial cells; most are nucleated. As

term approaches there is a linear increase in the total number of these cells and in the anucleate proportion. Many clinicians have attempted to determine fetal maturity by staining amniotic fluid with Nile blue sulfate, finding that the number of cells taking the stain increases with maturity. When greater than 20% of the cells take on the characteristic orange tint fetal maturity is virtually assured. The assumption has been made that these orange staining cells are sebaceous in origin, since in frozen biopsy of fetal skin sebaceous glands take the Nile blue sulfate stain. Yet it is unlikely that cells from a holocrine gland such as the sebaceous gland ever arrive intact in the amniotic fluid; the more logical interpretation is that increasing quantities of lipid material is excreted by the sebaceous glands as the fetus matures; this material then adheres to amniotic fluid cells. The orange material usually appears as droplet accumulations on cell peripheries.

Amniotic Fluid Enzymes. Most of the well known tissue enzymes used in clinical medicine can be found in amniotic fluid. Lactic acid dehydrogenase has been more clarified than the others, with electrophoretic determination of its 5 isoenzymes in amniotic fluid. Torrinha and Leite¹³ collected amniotic fluid from 12 normals, 8 intrapartum instances of fetal distress, and 10 erythroblastotics. They found an increase in Fraction V (LDH₅) in the fluid of the erythroblastotic fetuses. Fraction V (LDH₅) is elevated in liver disease as the liver is rich in this isoenzyme, and so increased amniotic fluid levels of Fraction V is no surprise in erythroblastosis as the liver is extensively involved in erythroblastosis.

Transfer of Drugs in Amniotic Fluid. Drugs placed in the amniotic fluid are swallowed, absorbed from the fetal intestinal tract, borne to the placenta, transferred to the mother and finally excreted. The rate of transfer might be an index of placental function. As early as 1934, PSP (phenolsulfonphthalein) was injected intra-amniotically and its ultimate appearance in maternal urine noted. More recent investigators have injected PSP in both normal and abnormal gestations. In con-

ditions associated with placental dysfunction there was a prolonged interval between intra-amniotic injection and appearance in maternal urine. Edelberg and associates¹⁴ injected PAH (para-amniophippurate) and found a distinct decrease in clearance in pregnancies complicated by preeclampsia, diabetes mellitus, and chronic hypertension.

Amniography. Injecting radiopaque contrast media into the amniotic sac has proved useful in outlining the placenta, the fetus, and diagnosing hydatidiform mole. The fetus swallows the media opacifying his gastrointestinal tract. This technique is quite safe if the mother is skin tested prior to injection. A quantity of amniotic fluid equal to contrast media to be injected is removed. The medium is injected at roughly 1.5 ml per week of gestation. More is needed for hydramnios. Within the hour the fetal upper intestinal tract is usually opacified.

Amniotic Fluid Electrolytes and Osmolality. Cassady and Barnette¹⁵ reported that amniotic fluid osmolality and sodium decline in the latter weeks of gestation in normal pregnancy. They noted a reversal of this trend in unsuccessful perinatal outcomes. We have found in serial evaluations of osmolality that such a trend is true, though weekly variations are wide. Kowarski¹⁶ found that the fetus produces and accumulates more aldosterone than the mother. Perhaps that would suggest that the fetus is in positive sodium balance in relation to the amniotic fluid. He would maintain such a positive sodium balance by retaining more of the amniotic fluid sodium ingested than he lost by urination. Further studies are in progress on amniotic fluid electrolytes and osmolality.

Amniotic Fluid Creatinine. The amniotic fluid begins to accumulate creatinine in the final weeks of the last trimester. This accumulation is related to fetal maturity and has become another measure of fetal maturity. We have found, as have others, that 2 mg per 100 ml of creatinine in the amniotic fluid strongly suggests a physiologically mature fetus.

Summary

Fetology's invasion of the amniotic sac

in recent years has proved to be safe, clinically useful, and a research tool of inestimable value.

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The authors review their cases of this condition, considering causes, history, diagnosis and surgical findings.

Foreign Body Injury To the Gastrointestinal Tract

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The vast majority of ingested foreign bodies cause few, if any, symptoms and are passed spontaneously. Certain types, however, are more likely to lodge and produce serious symptoms and sequelae. These are the sharp pointed ones such as splinters of wood, bones, needles and pins, and the more dense parts of vegetables and fruits. There have been many individual case reports concerning swallowed foreign bodies and a few reviews. While the incidence of perforations and penetrations of the gastrointestinal tract by sharp foreign bodies is low, this possibility should be considered in

Material

Table 1. lists our cases. The only fatality was a "dead-on-arrival" instance with generalized peritonitis in one who had been referred with a diagnosis of acute appendicitis. In the 2 cases with bones in the esophagus, the history was short and the diagnosis and treatment were quickly accomplished with the esophagoscope. The great majority of cases were those involving the small intestine, and the history of the present illness ranged from one day to 3 months. Six of these patients had histories and physical findings quite typical

TABLE 1.
SWALLOWED FOREIGN BODIES

CASE	FOREIGN BODY	SITE INVOLVED	ABDOMINAL X-RAY	DENTITION	LENGTH OF HISTORY
1. 63 NM	Pig Neck Bone	Esophagus	None	Full dentures	1 day
2. 28 NM	Pork chop bone	Esophagus	None	Not listed	1 day
3. 74 NM	Toothpick	Jejunum	None	Edentulous	10 days
4. 43 WM	Fishbone	Meckel's diverticulum	None	Most teeth present	2 days
5. 40 NM	Fishbone	Ileum	Negative	Few teeth remaining	1 day
6. 58 WM	Fragment deer rib	Ileum	Positive	Full dentures	2 weeks
7. 48 NM	Fishbone	Ileum	Positive	Edentulous	3 months
8. 78 NM	Fishbone	Ileum	Positive	Full dentures	Not given
9. 37 WM	Fishbone	Ileum	None	Most teeth present	Not given
10. 67 NM	Fishbone	Ileum	None	Few teeth remaining	Not given
11. 59 NM	Fishbone	RLQ abscess	Positive	Most teeth missing	2 weeks
12. 65 WM	Fishbone	Free near sigmoid	Negative	Most teeth missing	Not given
13. 50 NM	Fishbone	Perirectal abscess	None	Not listed	2 weeks
14. 54 NM	Fishbone	Bone in rectal wall	None	Not listed	Not given

the differential diagnosis, particularly when certain findings are present. This report concerns 14 such instances seen in a large VA hospital during the past 23 years.

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of acute appendicitis with the onset of epigastric or paraumbilical pain settling in the right lower quadrant associated with rebound tenderness in this area. Bowel sounds were hypoactive in most. One of these 6 patients had a 10 day history of

abdominal discomfort, increased gaseous distension, and some diarrhea, and by the eighth day his symptoms and physical findings caused his local physician to refer him with a diagnosis of appendicitis. In a seventh case there was a mass in the right lower quadrant which contained pus and led to a diagnosis of ruptured appendicitis and abscess formation; the bone was present in the abscess, and a review of the x-ray film showed it. The white blood count was elevated in 4 of the 7 above cases, normal in 2 and of course, was not done, in the "dead-on-arrival" case in which the diagnosis by a local physician had been acute appendicitis.

One patient showing one bone perforating the ileum and another bone walled off in the mesentery of the small bowel had a 4 day history of cramping abdominal pain and some distension. Seven years before, he had had gastric resection for duodenal ulcer, and one year before had been operated upon for intestinal obstruction with lysis of adhesions. Here, the preoperative diagnosis was intestinal obstruction due to adhesions. The abdominal x-ray films, on subsequent review, revealed the bone.

Two other patients had symptoms suggesting mesenteric artery thrombosis to some observers because the pain was steady, severe, and unrelated to meals and not relieved by change of posture or antacids. One gave a 20 year history of symp-

toms of duodenal ulcer, but the present symptoms were different and more severe. In one of these cases, the pain radiated to the back. One had a localized perforation of the ileum due to a fragment of deer rib which he must swallowed about 2 weeks before. (Fig. 1) The other had a fishbone



FIG. 1. Ileum with fragment of deer rib.

lying free near the sigmoid; in this instance a diagnosis of diverticulitis also had been entertained. The possible diagnosis in both cases included penetrating peptic ulcer. Both patients had elevations of white blood counts above 18,000.

The 2 patients with rectal involvement showed marked local inflammation, one

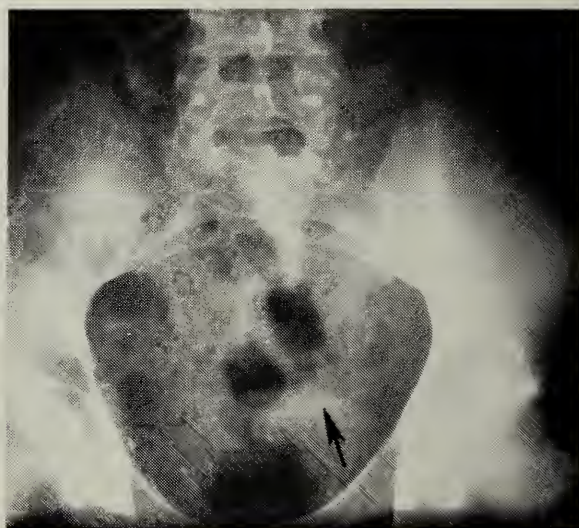


FIG. 4. X-rays in 2 cases showing shadows of bones.

with an extensive perirectal abscess, and the other with the bone crosswise in the rectum penetrating the wall at both ends.

Scout abdominal films were taken in 6 of the cases, and the bone could be identified in 4 instances. (Fig. 4) In our 2 most recent examples, the scout film led to a pre-operative consideration of foreign body. The table also reveals that the majority of our patients were elderly and either wore dentures or had very few remaining teeth.

Discussion

The possibility of a complication resulting from a swallowed object often is not considered in the differential diagnosis unless a positive history is given by the patient or unless one is examining a child or a person of unsound mind. The patient with a foreign body in the esophagus almost always gives a lucid history, but those with abdominal or rectal origin usually do not. How often they might remember if asked is difficult to determine. The usual diagnoses entertained in such cases are acute appendicitis, diverticulitis, and perforated peptic ulcer.

The most common sharp foreign body listed by McManus¹ in 1940 was a metallic one, occurring in 45 of his 93 collected cases. However, the type of swallowed

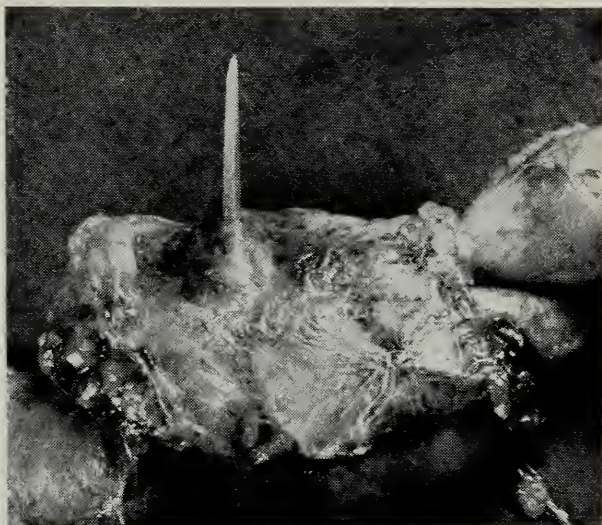


FIG. 3. Ileum perforated by toothpick.

foreign body listed most commonly in the more recent literature is a bone fragment, particularly a small fishbone. (Fig. 2) Fragments of chicken bones, ribs, and bits of bones from wild game are also reported. Wooden splinters and toothpicks are next in frequency. (Fig. 3) Perforations from a toothpick make an interesting group of cases.^{2,3}

The length of time from swallowing the object to operation is surprisingly variable. This ranges from hours to several years. Some bones have penetrated the bowel and have become walled-off dense areas in the mesentery or omentum. In our series, where the history was established, the time interval from swallowing the object until operation was relatively short, compared to many reported cases. The history usually is not given unless specifically asked for, and this is usually in the postoperative period.

The usual site of perforation is the terminal ileum or cecum, but other points along the intestine may be involved. Foreign bodies may cause acute diffuse peritonitis, but are more likely to present with localized acute inflammatory masses. Some are found in the para-intestinal abscesses or walled-off inflammatory masses in the mesentery or omentum. Some present as abscesses of the abdominal wall, perirectal abscesses, intestinal fistulas, or esophageal perforations.¹ Perforation of the ileum, appendix, and colon with the object lying

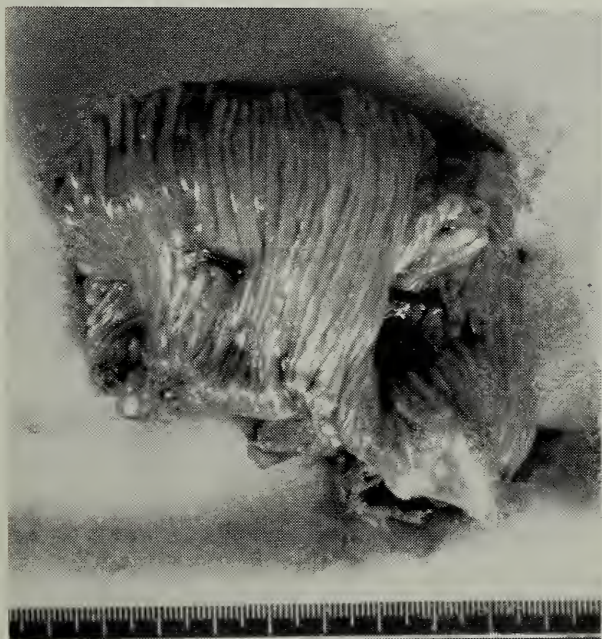


FIG. 2. Ileum showing through and through penetration by fishbone.

free in the peritoneal cavity have been described.^{4,5}

Thirty-nine cases of perforation of Meckel's diverticulum have been described previously,⁶ and the appendix has been the site of involvement in more than 40 cases.^{1,7} It is interesting that many of the instances of perforation of Meckel's diverticulum have developed slowly and the pain has been intermittent and sometimes mild. In other cases the pain has been of sudden and severe onset. The sharp objects causing perforation of the Meckel's diverticulum are listed as fishbones 21, wood splinters 6, needles and pins 4, rolled tomato skins 2, and one each of costume jewelry, bone fragment, cabbage stalk, grape seed, and prune seed. A point to remember during exploration is that periappendicitis may be present and confuse the diagnosis unless a perforation elsewhere is considered.^{6,8}

The importance of the preoperative abdominal x-ray study is brought out by Gunn⁴ and Burke and associates.⁹ In a review of our cases, films were available in 6 and bones were visible in 4 of these. In our last 2 cases, the objects were seen before operation and the possibility of foreign body was considered.

Poor dentition and the use of dentures in patients who have swallowed a foreign body have been noted by many. These persons tend to bolt their food and lose the sense of touch from the palate.^{9,10} Intake of alcohol has been a factor in swallowing objects in several of our patients. We have seen this as a factor also in cases where objects have been inhaled into the tracheo-bronchial tree. Swallowing of toothpicks at cocktail parties has been reported in a number of cases. Achlorhydria has also been mentioned as a factor in allowing bones to pass through the stomach in a sharp condition.¹⁰ Unfortunately, this factor was not investigated in our cases. The old-time remedy of doses of vinegar for swallowed bones was no doubt to aid the normal acidity. Intra-abdominal adhesions may also kink the bowel and slow up or stop passage of foreign bodies.

Conclusions

Sharp foreign bodies are an unusual but

important cause of intestinal injury. In the adult population of sound mind, this commonly occurs in the elderly patient with dentures or with few remaining teeth. The diagnosis is usually missed because it is not considered. An abdominal scout film will frequently show the bony foreign body. These patients rarely give an initial history of swallowing a bone or toothpick unless asked, except when it lodges in the throat or esophagus.

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This review celebrating seventy-five years of the Middle Tennessee Medical Association, offers entertaining reading, with an especially excellent account of "grave robbing."

Middle Tennessee Medicine 75 Years Ago*

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On September 20, 1894, at eleven o'clock in the morning, 33 Middle Tennessee physicians met in the Gentlemen's Parlor of the old Maxwell House Hotel in Nashville. The following day, a news item appeared in the *Nashville American*. At this meeting it was decided that a Middle Tennessee organization would be started to represent the physicians of this area. Committees were appointed, arrangements made and the first actual meeting was held on November 20th of that same year in Nashville in the Senate Chamber of the State Capitol Building. Doctor J. B. Cowan of Tullahoma became our first president and the constitution and by-laws adopted at the first meeting basically have been unchanged to date. As semi-annual meetings were decided upon, we today are marking the 150th such meeting.

Adorning our earlier programs and active in this organization in past years have been such illustrious names as Paul and Duncan Eve, C. S. Briggs, W. D. Haggard, Sr. and Jr., Richard Douglas, Lucius Burch, W. H. Witt, William Litterer, and on and on. Since its inception and as outlined by Dr. Cowan, our first president, in his initial address to the organization, our goal has been to serve the Middle Tennessee physician and, to best do this, hold meetings in the various towns of the area.^{1,2}

The attendance has varied some over the years but has, for the most part, remained amazingly constant in numbers. Although about one-half of the names of those attending vary from town to town, there has always been a central corps of loyal members attending each meeting. The original meetings were 2 days in length and the public was invited. The duration probably had something to do with the in-

creased travel time required by the horse drawn vehicle. The attendance has varied over the years but in no one's recall have there been less than 40 at a meeting with an average attendance of about 75. The largest attendance, about 125, was reached in Shelbyville in 1925, Fort Campbell in 1960 and at the present meeting. In recent years, Clarksville, Tullahoma, Lawrenceburg, Sewanee, Cookeville, Columbia, Shelbyville, Murfreesboro, Gallatin, Dickson, Lewisburg, and Springfield are numbered among the towns that have generously hosted our meetings.

From time to time, there have been suggestions that we build our programs around nationally known medical speakers. To many, however, one of the charms of our organization has been that our programs have been produced in Middle Tennessee and, for the most part, the practicing physicians have been the speakers. On one such occasion, at a meeting in Lawrenceburg several years ago, Dr. Henry Kirby-Smith of Sewanee best stated the feeling of most of us when he bluntly stated that if he wanted to hear a speaker from New York or Philadelphia, he would go there to hear him. In the meantime, he liked our organization just the way it was with our speakers supplied locally. I think he voiced the true feelings of the Association as no serious attempts have been made to "import" medical speakers since. Certainly, we would all agree there is much talent in our midst and there is need for some outlet whereby we can learn from our colleagues.

In attempting a historical sketch of the Middle Tennessee Medical Association, one immediately becomes immersed in the history of Middle Tennessee medicine and perhaps that is the way it should be. If our Association adequately represents the Middle Tennessee physician, any history of our Association should encompass some of the problems facing the physician of the day. It

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should depict a few of the customs of the time, a few of the theories of the understanding of disease, a few of the treatments realized, and, yes . . . discuss a few personalities and even pass on to you some of the anecdotes—not in any sense to be complete, but in the hopes of taking you through some of Middle Tennessee medicine as it grew to the point of 75 years ago and in its earlier stages since then. Seventy-five years ago Nashville, as now, represented the oldest and largest population mass of the area and most of the smaller towns represented here today were then in existence. Nashville in 1890 had a population of 76,000, Clarksville 7,900, Columbia 5,300, Murfreesboro 3,700, Tullahoma 2,400, Franklin 2,200, Gallatin 2,100, Lebanon 1,900, McMinnville 1,700, Springfield 1,400, Lawrenceburg, Manchester, Lewisburg and Woodbury 600, and Cookeville 500 each.³ To catch some of the flavor of medicine as it existed in Middle Tennessee 75 years ago, one needs to regain some perspective of dates and to orient oneself as to the signs of the times, etc.

Middle Tennessee Medicine Prior to Founding of M.T.M.A.

The first "doctor" in the Middle Tennessee area for many years after the founding of Nashville in 1784 and before any physician arrived was a horse doctor. Then, there was for a period of time "Granny Nell," an old full-blooded Shawnee Indian, a "female doctor," who ran a small tavern on the Nashville Square. She doctored the populace with various herbs and Indian potions but her major mark on the memory of Nashvillians was the Christmas days when she, quite drunk, would climb astride her horse and gallop around the Square several times until she finally fell off.⁴

From 1784 to 1894, the 110 years between the settlement of Nashville and the founding of The Middle Tennessee Medical Association, medicine had no consistent appearance. Physicians were available but it was not until 1889, after a half century of attempts, that The Tennessee State Medical Association was finally able to push through the Legislature a law requiring the licensing of physicians and, hence, in some way,

establishing minimal standards of practice.⁵ Homeopathy, osteopathy, patent medicine travelers and downright "con men" were the rule of the day. These people variously called themselves "Steam Doctors," "Faith Doctors," "Root Doctors," "Negro Doctors," "Cancer Doctors," "Doctors by Nature" and advertising to cure anything and everything by newspaper, posters, or whatever means was common practice of the day.⁵ The better physicians usually received their training in a two year apprenticeship with a practicing physician and some months of lectures at one of the many medical schools. A relatively large percentage of qualified physicians in the Middle Tennessee area in the first half of the 1800's were graduates of The University of Pennsylvania⁶, but by the latter half of the century many medical schools of more or less inferior quality had sprung up in Middle Tennessee. All were proprietary schools, often supervised by one or more doctors who charged considerable in tuition and offered their students varying qualities of medical education. For instance, one of the best qualified teachers of the latter half of the 1800's was Dr. W. K. Bowling who, in 1851, founded the medical school of The University of Nashville and subsequently became Professor of Medicine at The University of Tennessee Medical College in Nashville and the first editor of *The Nashville Journal of Medicine and Surgery*. It is interesting that just before coming to Nashville, he himself had for several years filled all the professorships in a small medical school in Logan County, Kentucky, where classes were held in a cave.⁷

One can well imagine the setting in which the reputable physician in the 1800's found himself in attempting to practice medicine adequately. In the first half of the century, very little was understood about the nature of diseases in general, and bleeding, blistering, purgation and leeches were the common practice of the day.⁸ To review history briefly, it was not until 1857 that Pasteur made his first observations on the relationships of bacteria to disease, and from then until 1900 revelation after revelation of causes of disease began to unfold—

the relation of fungi to disease between 1850 and 1870, the significance of parasites between 1870 and 1880, the specific relationship of bacteria to many of the diseases between 1880 and 1890, the significance of insects as vectors of diseases between 1890 and 1900, the appearance of antitoxins about 1900. The antibody and complement fixation tests in diagnosing disease became more widely used in the Middle Tennessee area about 1910. It was between 1880 and 1890, however, that the most important work was done. It was during this period that Koch developed his solid media for culturing microorganisms, demonstrated the tubercle bacillus and laid down the now-famous Koch's postulates which have had so much to do with the scientific basis of the origin of diseases in general and infections in particular. It was during this decade that Eberth described the typhoid bacillus and, subsequently, the pneumococcus, gonococcus, tetanus bacillus, etc., were demonstrated. The spirochetal origin of syphilis was not demonstrated until 1904. It was early in the 1900's before the practical values of bacteriology came into use in Middle Tennessee. It was only then that the Widal test was used widely to diagnose typhoid fever, the Schick test was developed, and more sophisticated cultures, Gram stains, etc., came into being. These aids were available to the medical student 75 years ago only to a limited extent.⁹ Seventy-five years ago, the medical student was, as a rule, fairly sophisticated, however, in the study of anatomy.¹⁰

Middle Tennessee Medical Schools

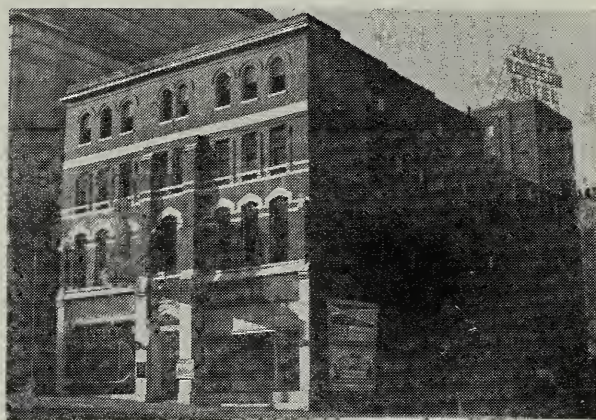
There were 5 medical schools in Middle Tennessee in 1894. By the turn of the century some 300 new students were being admitted annually to medical schools in Nashville alone.¹¹ Vanderbilt and The University of Nashville were combined physically but gave separate diplomas and were located in a building at the corner of Second Avenue (Market Street) and Elm Street, near our present Metropolitan General Hospital. (This building which many of you will recognize, is still standing adjacent to the old fire hall at that site. A year later, 1895—Vanderbilt University



University of Nashville & Vanderbilt Until 1895
University of Nashville 1895-1909
University of Tennessee 1909-1911

Medical School separated from The University of Nashville Medical School and moved into its own building at the corner of Fifth Avenue [Summer Street] and Elm.)

The University of Tennessee was located on Broad Street between Sixth and Seventh Avenues in the building now occupied



1909 University of Tennessee

by The Ansley Hotel. It actually was an outgrowth of The Nashville Medical College founded in 1876.¹² The fourth medical school, and also founded in 1876, was Meharry Medical College which was located at First Avenue and Chestnut Street diagonally across from where the Johnson Elementary Negro School is now located. It was generally referred to as Hubbard Infirmary; Dr. George Hubbard was a capable and respected Negro surgeon in the community.¹³ The fifth medical school was

Sewanee which opened its medical department in 1892 and finally closed in 1907. It operated in association with the Emerald Hodgson Hospital which is still being used today.¹²

In the 1900-1910 era, Dr. William L. Dudley was Dean of Vanderbilt and Professor of Chemistry; Dr. Richard Douglas was Professor of Gynecology; Dr. John A. Witherspoon, Professor of Medicine; Dr. Thomas Menees, Professor of Obstetrics; Dr. George H. Price, Professor of Physiology and Diseases of the Eyes, Ears, Nose and Throat; and Dr. William Litterer, Professor of Pathology, Histology and Bacteriology.^{9,12,14} The University of Nashville boasted such names as Dr. Charles Brower, Professor of Surgery; Dr. C. S. MacGannon, Professor of Gynecology; Dr. E. G. Wood as Professor of Medicine; Dr. Thomas Maddin as Professor of Urology and Psychiatry; Dr. Sidney Crockett, Professor of Obstetrics; Dr. Alberte Hudson, Professor of Anatomy; Dr. Charles E. King, Professor of Chemistry and Physics; Dr. Jacobs, Professor of Physiology; Dr. William "Daddy" Ewing, Professor of Materia Medica (Pharmacology); and Dr. McTyeire Tigert, Professor of Prescription Writing.¹⁵ The University of Tennessee had such illustrious names as Dr. William D. Haggard, I, Professor of Gynecology; Dr. Paul F. Eve, Professor of Surgery; Dr. John S. Cane and Dr. W. McCampbell as Professors of Medicine; and Dr. W. Frank Glenn, Professor of Urology.¹²

It is well to pause a moment and review the situation that existed in medical education in Middle Tennessee 75 years ago. Four of the 5 Middle Tennessee medical schools were located in Nashville within only a few blocks of each other. Although earlier The University of Tennessee occupied quarters on Broad Street between Sixth and Seventh Avenues, in 1909 it moved to Second Avenue (Market Street) and joined The University of Nashville Medical School, occupying the same quarters and the same relationship with The University of Nashville as had previously been held by Vanderbilt.¹² The rivalry that developed between these schools was intense. The recruiters for the schools were quite aggressive and it is stated that they actually boarded trains carrying prospective students coming into Nashville in attempts to sign these students to their respective schools.¹⁴ It was not uncommon at that time to see the rivalry carried to such an extent that the professors verbally abused each other from their classrooms.¹⁶ Although it

is reported by at least one writer¹² that all of the Nashville medical schools had access to the Nashville City Hospital for their clinical teaching, existent information seems to deny this and confirms that the Meharry students had their clinical experiences largely confined to The Hubbard Infirmary.^{14,15} The curriculum set up for the students usually was for a period of six or seven months a year, the course of study extending over a period of 3 years. In 1906, Sewanee increased its requirements to 4 annual courses of medical lectures of not less than 6 months each, including 2 courses of anatomic dissection, 2 clinical courses, one "endorsed" course in operative surgery, practical chemistry, bacteriology and microscopy. Written examinations were required.¹² Vanderbilt graduated its first four-year students in 1903¹⁴ and at least by 1907, The University of Nashville Medical School was requiring the same.¹⁵ During this era great emphasis was placed on the value of anatomic dissection and the difficulty of obtaining cadavers and the rivalry existing between the schools in relation to this will be described later.¹⁰ The average student spent most of his day in classes listening to lectures. Once or twice a week he was allowed the exciting experience of attending a demonstrative surgical clinic at Nashville City Hospital, and usually the operation was carried out in an amphitheater. Various private surgeons who taught in the medical school would from time to time bring their patients into the City Hospital for operation and for demonstration purposes. Although allowed to watch, the student never became involved nor was he allowed to assist in the operation.^{12,14,17}

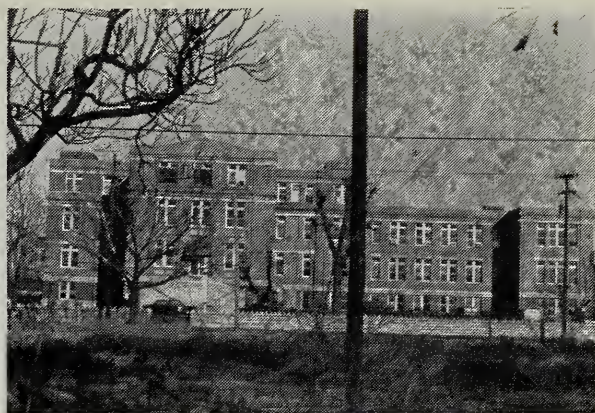
Pharmacology was generally referred to as "materia medica" and the students were required to learn the Latin botanical names of most of the drugs used in their prescriptions. They were given "shotgun prescriptions" to memorize and when asked specifically by the professor for one of these prescriptions, the student quickly learned to rattle off these prescriptions verbally. An example was an old time prescription used as a tonic for stomach trouble and was as follows:

"Tincture nux vomica—drams iv
 Tincture gentian compound—drams iv
 Dilute hydrochloric acid—drams ii or
 drams iv
 Elixir lactated pepsin ad qs—ounces iv
 Sig: I teaspoon ac."

Quinine and Dover's powders were commonly used at that time, and of course every student was quite familiar with calomel and jalap, used primarily as purgatives. The antipyretic drugs included the coal tar derivatives which came into being about 1890,⁹ beginning with antifebrine, followed by phenacetine, antipyrine, and others.⁸

During the first 25 years of the 1900's, the medical school curriculum gradually became more sophisticated and more recognizable as being similar to our current medical school curricula. The emphasis on anatomy lessened and other courses such as bacteriology, chemistry, physiology and pathology gained importance. Whereas the teachers generally received no remuneration for their work, it was recognized that it certainly aided and abetted their clinical practices. By 1920, a number of the basic science professors were full-time in the medical school and hence drew their full income from the medical school. At Vanderbilt this included such professors as George M. Curtis, Professor of Anatomy; Dr. Charles E. King, Professor of Physiology and Pharmacology; Dr. Benjamin T. Terry, Professor of Clinical Pathology; Dr. Leery, Professor of Biological Chemistry; Dr. William Litterer, Professor of Bacteriology and Dr. W. H. Dudley, Dean of the Medical School. On the other hand, practicing physicians were the professors and did all of the teaching in the clinical years and the responsibility for the service rotated between different clinicians, usually in periods of two months each. In the early 1920's, these included Drs. W. C. Dixon, McTyeire Tigert, Owsley Manier, McPheeters Glasgow, John A. Witherspoon, Lucius Burch, Richard Barr, etc.^{13,14,18}

By 1922 or 1923, the Vanderbilt Medical School, still located at Fifth and Elm Street, had almost completed a new hospital, referred to as the Galloway Hospital. The roof was barely completed when Chancellor Kirkland received a multimillion dollar



Galloway Hospital, Built 1923
 Now Metropolitan Office Building

grant from the General Education Fund and the Rockefeller Fund and work was halted on the new hospital as the grant reportedly stipulated that the University be confined to a single campus. This "hospital" building is still standing and now serves as the Metropolitan Office Building on Second Avenue. As the Medical School then was still located on Elm Street and the remainder of the University was on the West Campus (where it is now located), arrangements subsequently were made to move the Medical School to the West Campus and this was executed in September, 1925. At the time of the move, Kirkland Hall, Furman Hall, Kissam Hall and Wesley Hall were all standing on the West Campus. (Just prior to the move, two young residents were brought into the Vanderbilt Medical School, the Resident in Medicine being Dr. Tinsley Harrison, the Resident in Surgery, Dr. Alfred Blalock.) The subsequent course of this school has, of course, been an illustrious one and its history is so vivid in the minds of most of us that it will not be repeated at this time.

The University of Tennessee, on the other hand, following the somewhat devastating report by Abraham Flexner in 1909, it then being combined with The University of Nashville, moved to Memphis and its subsequent course is also well known to us. The momentous decision to move The University of Tennessee was reportedly made on an upper floor of The Absinthe House in New Orleans at a nonpublicized meeting between Dr. R. O. Tucker and Dr. Duncan

Eve, representing The University of Tennessee, and Dr. Lucius Burch, representing Vanderbilt.¹⁹

Meharry, along with Hubbard Hospital, subsequently moved to its present location on 18th Avenue in North Nashville and its record can well stand for itself. The Sewanee Medical School became defunct in 1907.¹²

Thus, what was originally an over-concentration of medical education in Middle Tennessee by everyone's standards and brought out by the Flexner report, was in 1911 resolved into a more reasonable situation and it was on the strength of these changes that the three surviving medical schools—Vanderbilt, The University of Tennessee, and Meharry—have grown to their present stature. It is interesting that Flexner strongly advocated the abolishment of The University of Tennessee since he thought the state could not support another medical school.¹² History, at least in this instance, has proven Abraham Flexner wrong.

Medical School Anatomy Courses—The Problem of Supply and Demand

As mentioned above, a relatively greater emphasis was placed on the teaching of anatomy in the medical schools in 1894 than today. Dissection of cadavers was in vogue but problems existed. With more than 300 medical students in anatomy classes each year, the problem of supplying bodies for dissection became acute.

Although Massachusetts had liberalized the legal provisions for dissection in that State as far back as 1831, by allowing unclaimed bodies to be turned over to medical institutions for dissection, in Tennessee it was against the law to dissect a cadaver under any circumstances. However, the Southern white authorities often were lax in enforcing the law, especially where Negro cadavers were concerned. It was not until 1899 that the Anatomical Act of Tennessee was passed, allowing unclaimed bodies from public penal or charitable institutions to be used by medical schools for dissection. Unfortunately, this particular law applied only to communities of 40,000 or more and it was not until

1947 that a more liberal law, allowing dissection of unclaimed bodies in counties with a population of 10,000 or more, was passed. In 1961, the final liberalization of the law was made in which the Tennessee Legislature at last made it legal to allow a person to will his body for the advancement of science.^{10,20} In the meantime, to ease the problems created by strict laws of obtaining cadavers, grave-robbing was widely practiced and grave robbers were commonly referred to as "resurrectionists." The practice of grave-robbing was rampant in Middle Tennessee at about the turn of the century and persisted well into the early 1920's.^{18,20} In fact, because of Tennessee's antiquated laws, grave-robbing probably persisted in this area longer than anywhere else in the country. The number of tales that are still told about the escapades of the "resurrectionists" are legion among many of the older doctors.

Each medical school in the area had its own "buyer" or "fence" who received and presumably paid for the stolen bodies and embalmed them when necessary. The going rate was \$25.00 per body received. Less frequently the medical school representative did the actual grave-robbing. These "buyers or fences" at the medical schools usually had acquaintances who were informers and supplied them with information about the locations of new burials or accessible bodies. The informers varied in occupation, and one in Nashville at the turn of the century was the actual custodian of Potter's Field. Some were doctors who had attended the patient during the last illness or who had a great interest in a particular medical school. Some were undertakers, and at least one was a minister who advised his mourning families exactly where and how to bury their dead. One such supplier was a mail carrier who worked on Fessler's Lane and lived near the cemetery and had an arrangement with the sexton at one of the cemeteries. At night, after opening graves, he would bring the bodies into town in the same buggy in which he had delivered the mail in the day time. Often, in locating and learning how a casket was buried, the grave robbers or the informants would attend the funeral of their intended victim and would

pay attention to the type of casket that was used so they would better know what types of tools to use. They even accompanied the mourners to the cemetery to learn exactly where to strike.^{10,19,20}

The purpose was to get the body as soon after it was buried as possible. It seems plausible that our rather unusual custom in Middle Tennessee of having the family stay at the funeral until the last shovel of dirt has been placed on the grave may well have had more than just sympathetic feeling behind it.

Negro graves furnished by far the majority of bodies, probably for two reasons. They were often buried in small private graveyards where guards were not available and, secondly, the Negroes were often afraid to stay around graveyards after dark which, of course, made robbing the graves much easier.

The actual techniques used by the grave robbers is of interest. The resurrectionists usually approached the grave after dark in groups of two or three and preferably worked by moonlight. They carried no lanterns. The transportation used was usually a privately-owned wagon, a livery stable rig or a doctor's buggy, on the back of which, "with top pushed back, two bodies could be safely carried if well tied on." It would usually be hitched some distance from the grave and a watch posted. Only half the grave was opened. The coffin was usually either glass-topped or wooden. The wooden tops were drilled with a line of holes across by means of a brace and bit. This of course was not necessary if the coffin had a glass top. A sack (probably the one into which the body was later placed) was put over the top to deaden the sound of the breaking wood or glass and the cover broken open. The body was then pulled out arms first and put in a sack and the hole filled.¹⁰ Another variation of this technique was to tie a rope around the victim's neck, once the top of the casket had been broken and, in order to speed things along, pull the body out by the neck through the opening with the rope attached to a horse.¹⁹ Because of the methods used, one can see the importance of the resurrectionist knowing exactly how the body was buried, its

position in the casket and the type of casket used. If anyone came along by accident at the time the resurrection was being carried out, the man with the wagon or buggy would often stop to fiddle with his harness as if something were the matter with it and he had just stopped to fix it.¹⁰

The business engendered by grave robbing was a sizable one. Not only did the amounts paid to the resurrectionists for the bodies adequately compensate them for the risk, the valuables buried with the bodies were "finders keepers" and not a small amount was collected by medical school representatives in gold from teeth, etc. Then, of course, if the bodies were shipped out of town, a middleman's profit was anticipated.

The residents of Middle Tennessee generally were aware of the hazards of having their beloved ones snatched from the grave and various measures were taken to counteract this. In the larger cemeteries, guards were constantly on duty, and in the smaller ones family members often set up "watches" on the newly buried. There were various types of patented coffins designed to assure rest in peace. Sometimes the bodies were placed in storage houses until the "worms and their lesser brethren" had made the bodies undesirable to the resurrectionists.¹⁰

A "44" and Winchester were tools of the trade in addition to the shovel and brace and bit, as not infrequently the resurrectionist was surprised in the act.¹⁰ Old Bill, as we knew him at Vanderbilt, was still around even when I came through anatomy (1948) and Bill showed each incoming freshman class the scars on his leg where he had been surprised one night. This happened while working with another employee called Sam; they were lifting a body from a grave at Mount Ararat. A former co-worker had decided to go into business for himself and was sitting in wait for Bill and Sam behind a cedar tree and "rose up and shot." "Poor old Sam, he run and left me there with the stiff," Bill told Dr. Clark years later and an occasional pain and the scars remained the rest of Bill's life.²⁰ Sam later got his also. He used to show the students in the anatomy class, as late as 1919,

several bullet holes in his legs which had been obtained in various grave-robbing episodes.¹⁸

Sometimes the bodies were picked up at prisons by people who illegitimately signed as relatives and simply claimed the bodies. At the public institutions, however, an informer usually would let the various medical schools know when someone had died. Then the race was on, and in the still of the night frequently carriages from two or three medical schools would make a wild race to get to the body first. At the state prison, for instance, the doctors, once the prisoners had been buried, would have the trustees dig them up and have them ready by the time the medical school representatives had arrived. At Central State Hospital they were "buried down at the far end" and Bill and old Julius, with the help of a senior medical student, frequently obtained bodies. At Potter's Field, the caretaker was an old lady who had a half-witted son, and buried the dead only two or three feet deep. She usually required whiskey in addition to a payoff.¹⁰

Sometimes things did not go so well. A policeman's father was stolen from the cemetery at Eagleville and arrangements were made for the body to be sold to The University of Nashville Medical School. It was subsequently shipped to Iowa. The residents of Eagleville learned of this and brought suit against the Nashville school. The suit was eventually thrown out of court but the doctor in the case got a four-year prison sentence but was pardoned by the Governor after a few months. The doctor had to move away from Eagleville.¹⁰ Another story is told about old Sam, one of the Vanderbilt employees, in reference to a man who had died in Columbia. Dr. Dudley, then the Vanderbilt Dean, reportedly called in Sam and ordered him to get the body. Again, somehow or another, the family discovered the empty coffin and, of course, realized the body had been stolen. Sam had been in Columbia at about that time, and his reputation as a grave robber being known, a warrant was issued for his arrest. When Dr. Dudley learned of this, he called in Sam and reportedly advised him to plead the Fifth Amendment by saying nothing

that might incriminate himself and told him that he would get off if he would simply give that answer. Sam finally got the message and when he was asked by the court if he would swear the whole truth and nothing but the truth with his hand on the Bible, Sam reportedly replied, "I'm gonna tell you what I ain't gonna tell you and that is, I ain't gonna tell you nothin' that will 'criminate me or bear on me." No further questions were successful and Sam was acquitted. Still another story is told in reference to Dr. Hilliard Wood, ophthalmologist, who was a devout Vanderbilt supporter and instructor at the turn of the century, and at the time intense rivalry existed between Vanderbilt and The University of Tennessee. Dr. Wood stabled his horses at the same livery stable with Dr. R. O. Tucker. Dr. Tucker was about as loyal to The University of Tennessee as Dr. Wood was to Vanderbilt. Quite late, one evening, Dr. Tucker drove his rig into the stable, unharnessed his horses and was taking them into their stalls when he stumbled over something in the hay. Closer examination revealed it to be a stiff in a sack. Dr. Tucker assumed that Dr. Wood had hidden the body there and was planning to take it to Vanderbilt for anatomic dissection. Dr. Tucker, without saying a word to anyone, reharnessed his horses, picked up the sack, and took the stiff to The University of Tennessee, donating the body to it. It is interesting that a number of years went by and neither Dr. Tucker nor Dr. Wood mentioned the incident to each other, nor did Dr. Wood ever mention that the stiff existed. Dr. Tucker assumed that Dr. Wood feared the family had found the stiff or that the police had picked it up and, therefore, was afraid to mention it to anyone. Dr. Tucker by the same token was able to chuckle to himself for many years thereafter and subsequently told this story.¹⁹

The Nashville resurrectionists became so adept in their practice that they were not only able to supply the 125 to 150 cadavers needed each year to the local medical schools, but were able to ship by express about 100 bodies per year in unlabeled barrels of sawdust and alcohol, mostly to Iowa City, Iowa. No paperwork was done

on these and the expressmen and dealers handled the money personally.

Little Harry was one of the people who worked for the medical school at The University of Nashville and one day got a body out of a house by signing up with the Justice of the Peace that he was a relative. He sold the body to The University of Nashville. At another time, Little Harry and an accomplice "double-crossed" two of their partners and when Little Harry took the two bodies into the back door of The University of Nashville school, he failed to shut the door tightly. His friends who had been "double-crossed" came in later, took the bodies out in a wheel barrow and broke the lock on the door to make it appear as if the bodies had been stolen. They took the bodies in the wheel barrow to Vanderbilt in the middle of the night and resold them. Dr. William Ewing, head of the Nashville school at that time, offered a \$500 reward for information about the identity of the robbers and the two detectives on the case, Sidebottom and Turner, offered another \$100 for information about the bodies but no information was forthcoming and it was not until many years later that the story was told.

In about 1899, at the Vanleer Kirkman place on Franklin Pike, one grave robber who knew about a burial was shot and killed by the brother who was apparently assigned to watch the grave. The other men got away, losing only their brace and bit.¹⁰

One of the former young professors at Vanderbilt in 1907 tells the interesting story of the police coming to the medical school in search of a body of a prominent Nashvillian which had been snatched from the grave the previous night. The young professor was sent down to the front door to argue with the police and detain them while Bill and Alex let the body down by ropes from a back window of the fourth floor anatomy laboratory into the buggy of Dr. B., a school official. By the time the police got into the anatomy laboratory to make their search, Dr. B. and the "stiff" were far away.²¹

A former assistant in the anatomy laboratory, and now a practicing physician, tells

the story of walking into the fourth floor anatomy laboratory at Fifth and Elm as late as 1919 and surprising "Big Sam," one of the laboratory employees. Sam was in the process of unloading a large gunny sack from the dumb waiter and emptying its contents, a body, onto the floor. Usually these bodies came up at night and the "stiffs" were in sacks. Apparently, the devious obtaining of bodies did not stop at least until after this time.²¹

Hospitals in the Middle Tennessee Area

In the 1800's, the larger hospitals of Tennessee were supported by state or city governments and were exclusively for the poor who could not afford to pay to have a surgeon come to their home. Hospitals were regarded as places to which to go to die, and no person with money would think of entering a hospital.²² It was for the care of the charity sick in Middle Tennessee that, in 1883, the Board of Public Works and Affairs of Nashville proposed to the City Council plans for a hospital. Nashville City Hospital was not opened, however, until 1890 when 60 beds were made available for emergency care and charity patients. Dr. Charles Brower of The University of Nashville was appointed superintendent.²³ It was not until well into the 1900's that the Board of Directors changed the name of the Nashville City Hospital to Nashville General Hospital with the purpose of adding prestige and hoping to escape the stigma of being entirely a charity institution.¹⁴ With the success of Listerism, however, a need was created for a better operating room than the kitchen or nearest tree, so surgical infirmaries began to be established in the 1880's and 1890's by the medical profession. The term "infirmery" was used by doctors of that day to indicate a small hospital-doctor's office combination. To apply the term "clinic" would be incorrect.¹³

St. Thomas was founded in 1898 and the Hodgson Memorial Hospital in Sewanee in 1899 in conjunction with the medical school there. The University of Nashville had a small hospital, primarily for teaching purposes, that dated back to 1850 when it used the facilities of St. John's Hospital and later St. Vincent's Hospital.¹² As both The

University of Nashville and Vanderbilt University, from 1894 through 1910, were using the convenient Nashville City Hospital beds for teaching, there was very little stimulus to have beds in the medical schools.

In 1904, Vanderbilt did place some 20 or 30 old pine beds on the first floor of its building at Fifth and Elm. Classes were held on the second and third floors and the anatomy laboratory was on the fourth floor. The very first patient to come into the newly created Vanderbilt Hospital was an old Negro, Aunt Lizzie Jennings, who was known to suffer from frequent intestinal obstruction as a result of adhesions. One day, word was received that Aunt Lizzie Jennings was ill again and, as the hospital had just opened its new beds that day, Sam Crockett, the Negro orderly, was dispatched with a wheel barrow to Buck's Alley, which was between the school and Gerst's Brewery on High Avenue (Sixth Avenue). Sam brought Aunt Lizzie back in the wheel barrow and the operation was performed that very afternoon before the students. Aunt Lizzie was not very anxious to go into the hospital as word had been spread around that there was an anatomy laboratory on the top floor and they were probably going to take her remains from the surgery up to the top floor for dissection. Nevertheless, Aunt Lizzie recovered from her operation and remained well thereafter. It was only several years later that patients were moved from the basement to the second and third floors of the medical school building and the hospital subsequently was expanded. However, it was an expensive operation (as it apparently is now) and the hospital was never as large nor as widely used as the close-by City Hospital.¹⁴

Of interest is the manner in which the patients were managed surgically. Once antisepsis had made hospitals safe as well as convenient, the average wealthy patient at the turn of the century usually chose to go to a hospital for his operation. Although he might choose St. Thomas, which was largely a private hospital, he was more likely to choose one of the many infirmaries that were spotted throughout the area at that time. The setup in an infirmary was interesting and generally con-

sisted of a surgeon as the central figure with an internist, obstetrician, pediatrician, etc., giving him support and referring him patients. "The internist shook the tree for the apples to fall off and the surgeons picked them up." One of the best known clinics in the area was that of Dr. Richard Barr, which was located at the corner of Division Street and 19th Avenue. It is estimated that Dr. Barr's clinic had about 40 beds. He had Dr. Harry Marr, an anesthesiologist, working with him and his "clique" (a term commonly used to describe the satellite medical group) also included Dr. Owen H. Wilson, pediatrician; Dr. W. H. Witt, internal medicine; Dr. Al Harris, neurology; and Dr. Bush Anderson in general medicine at that time. Drs. Thomas and Sam Briggs had their clinic which, at least for a while, was located at the corner of Second Avenue and Union; they had about 20 beds in their infirmary, but had no clique or supporting group working with them. Although the Briggs Clinic was extremely prominent in the 1880 to 1910 era, it disappeared shortly thereafter. A third clinic was that of Dr. C. S. MacGannon, who was said to have been a classmate of William Osler and was brought to Nashville from Toronto as Professor of Gynecology at The University of Nashville in 1907 or 1908. He was further said to be the society surgeon for Nashville; his infirmary was referred to as the Woman's Hospital and was located at the corner of Eighth Avenue, North, and Union Street, diagonally across from the present site of the Metropolitan Public Library, and on the site where the Federal Reserve Building is located. He had among his clique Dr. David Pickens, Sr., surgeon; Dr. George Williamson, surgeon; and Dr. E. G. Wood in internal medicine, whom he brought from Canada. Dr. Williamson for a while served as his resident surgeon, as was often the custom in the smaller hospitals, that is to have a single resident surgeon serving his apprenticeship. It is estimated that there were some 50 to 60 beds in this clinic. A fourth clinic was the Dozier Clinic which included Drs. Bate and Robert Dozier and was located in North Nashville at the corner of Monroe and Ninth Avenues. This was a small infirmary with

some eight or ten beds. The fifth infirmary was operated by Drs. Paul F. and Duncan Eve, Sr., brothers, and who later brought in Dr. Duncan Eve, Jr. Their infirmary was a relatively small one, containing some 10 to 20 beds and was located on Broad Street near the corner of 15th Avenue, where the Bunch Cadillac Agency is now located. Their work was primarily industrial as they were the surgeons for the L&N and NC&St.L. Railroads, as well as the telephone company and the streetcar company. The sixth major infirmary was that of Dr. Richard "Dixie" Douglas located at the corner of Second Avenue (Market Street) and Peabody. Another group in the 1910 to 1920 era which should be mentioned was that of Dr. Van Sanders, a prominent surgeon, who also had his own clique of doctors but did not have an infirmary. He disliked St. Thomas Hospital and felt its admission policies were unfair. He reputedly was the major promoter in establishing the Protestant Hospital in 1919, now named the Baptist Hospital after it was transferred to the new ownership in 1948.¹³ The land purchased for this was the old Murphy homeplace between 20th and 21st Avenues, extending from Church to Charlotte Avenues.²³

It generally was the custom of the surgeons who headed the infirmaries to send their surgical work to their own infirmary and to receive what support they needed from the other members of their "clique." If they had an overflow, it was likely to go to St. Thomas Hospital or occasionally to one of the teaching hospitals such as Nashville City or Vanderbilt Hospital. This era of mixed specialty groups extended well into the 1920's and is quite a contrast from our distinct lack of such mixed groups in this area at the present time. The general surgeon of the day was truly general. The only subspecialty recognized at the turn of the century was "eye work," Dr. G. C. Savage being one of the first specialists. Later in the 1900's, orthopedics became the second specialty, pioneered in Middle Tennessee by Drs. R. W. Billington and Adam Nichol.

It is apparent that little has been said about the treatment of the non-surgical

patient, having pneumonia, fever, etc. Generally speaking, these patients were treated in their home.¹⁵

Practice of Medicine in Middle Tennessee

One can easily understand some of the trials and tribulations that beset the Middle Tennessee physician 75 years ago. The practice of medicine was not easy. He then, as now, chose to see patients in his office whenever possible, though house calls to see the ill, especially those with nonsurgical problems, were frequent. The doctors' offices in Nashville were not dissimilar to those of today. Generally, they consisted of a waiting room, two or three examining rooms, and some type of small business section. For the most part they were scattered between Seventh Avenue (Vine Street) and Eighth Avenue (Spruce Street), extending from Broad Street to the region of the Capitol Building. On Seventh Avenue directly across from where the YMCA Building is now standing, there were three doctors' offices, each with its separate building. Seventy-five years ago, the old Ward School was located on the west side of Eighth Avenue, between Commerce and Broad and next to it was Dr. G. C. Savage's Ophthalmology Office Building. Directly across the street on the other side of Eighth Avenue, near where Hume-Fogg now is located, were the offices of Dr. J. A. Witherspoon, Dr. Lucius Burch, Dr. W. D. Haggard, Drs. O. N. and W. A. Bryan, Dr. W. C. Dixon and Dr. George Price. Dr. Eve kept his horses on Polk Avenue where he had his home in back of the present Doctors' Building although his office was at 15th and Broad. At the site where Fall's Business College is now located, on Eighth were the homes of the Bransfords, the Thomases, and other fashionable families. These homes of socially prominent families began at this point and extended west to the area of 16th Avenue and West End and then southwest to the Belmont College area. Actually the Vanderbilt University West Campus was then truly on the west border of the city.¹³

The major transportation in Nashville 75 years ago was either on foot or horseback, or in some form of horse rig, such as the

buggy or livery stable rig. Most of the doctors drove a one-seated buggy rather than riding a horse because it was easy to get into and out of it, and was relatively more wind- and rain-proof. Generally they kept their own horses, driving from home to work in the buggy. Most of the doctors, because of where their offices were located, used the livery stable between Fifth and Sixth Avenues behind of where the First Baptist Church is now standing.¹³ The rental in the livery stable was "very high" and the doctors were charged \$18 a month, but this included having the horse and buggy picked up at the office, taken to the livery stable, kept during the day and then "sent back again when ready to leave the office."¹⁴ There was another livery stable on College Avenue (Third Avenue) where the Nashville Trust Building is now located and still another one on Front Street (First Avenue) at a site opposite Fort Nashboro and extending between First and Second Avenues. It was not until the 1905 to 1912 era that automobiles came into use.

There seems to be no real agreement about which doctors had the first automobiles in Nashville, but certainly one of the first was Dr. Charles Brower, who in 1908 was proudly driving around in a red "Steamer." He also had an EMS and a buggy with a blind horse and used all three interchangeably. Needless to say, he "cut" a fairly wide swath.¹⁵ Dr. J. A. Witherspoon (the uncle of Dr. Jack Witherspoon, of Nashville) drove a red Knox car which "was at least as big as a Cadillac" and always used a Negro driver named Mansfield Douglas (the grandfather of our present city councilman). "When he went around in that red Knox, Dr. Witherspoon looked like the Prince of Wales because the back seat was elevated above the front seat and he always sat up quite high while Manse drove him around town." The doctor of the day with his Homburg hat and often a cut-away coat must have been quite striking. When Dr. Witherspoon took a trip by railroad, he often had an entire rail car assigned to him because of close friendships with the presidents of both the NC&St.L. and L&N Railroads. Dr. W. H. Witt drove a coupe with a hardtop and a sliding window

in the top very much like the modern European cars. Dr. William Litterer reportedly had a red Cadillac, and it seems that generally the doctors fared well when they gave up their buggies and obtained the "horseless carriage."¹³

The nonsurgical problems of the day, as mentioned, were treated largely in the homes and the physician's armamentarium was considerably less than it is today. The specialty of internal medicine did not exist. Cultures were made in pneumonias, and were grouped on the basis of their bacteriology. By the 1900's, when a patient had a fever, he largely was treated supportively, and the drugs used included quinine (used in any febrile illness), aspirin, liniments, cough syrups, codeine and morphine, Verinal and Trional (the earliest barbiturates), laxatives (usually cascara and epsom salts) and iron. Even then there was considerable argument among doctors as to which iron preparation was the better, ferrous chloride or ferrous sulfate. Occasional transfusions were used but were invariably the person-to-person type.

In 1894, pediatrics was not a specialty and the term "specialist" meant an eye doctor. "The baby was the by-product of obstetrics and handed at once to the tender care of grandmothers and aunts who resented any medical interference. Even at the hospital, it required many years of concentrated effort to provide the newborn baby with a separate chart. However, in those days only a very small minority of babies were born at a hospital."²⁴ There was no "pure" obstetrician, every doctor being able to perform a delivery when the need arose. Almost all deliveries were in the homes. Only a few of the charity Negro women were taken to the hospitals for delivery. Deliveries were taught medical students in the home; usually two students accompanied one of the professors at the time of a delivery in the home (at around 1911, these usually were Dr. Andrew Hollabaugh and Dr. J. T. Altman in the Vanderbilt School). The anesthesia used for home deliveries at that time usually was chloroform though it was not used as a general anesthetic in Nashville otherwise. The usual custom was for the physician to ask the

family for a teacup and a napkin; the napkin was stuffed into the cup and chloroform was poured on it. Then the patient was asked to hold the cup over her face which she did until she became unconscious from the chloroform when her hand would drop and she would no longer breathe the chloroform.¹³

Radiology was not practiced 75 years ago. Although Dr. Landon C. Garland, Chancellor and Professor of Physics at Vanderbilt, had lectured on cathode tube radiant energy in 1879 and even predicted its use in photography, to Roentgen belongs the credit for demonstrating its practical value to the world. Roentgen did not even make his first observations on the Crooke tube until the end of 1895. He published his results promptly, however, and almost immediately, Middle Tennessee physicians became active in the field. By March of 1896, two journals published in Nashville, *Nashville Journal of Medicine and Surgery* and the *Southern Practitioner*, featured articles on the application to human medicine.

That very same month, John "Dynamo" Daniel, Professor of Physics at Vanderbilt, performed an interesting experiment on Dr. W. H. Dudley's head (Dr. Dudley was Dean of Vanderbilt and the man for whom Dudley Field was named). In attempting to obtain a picture of Dr. Dudley's skull, Dr. Daniel placed the x-ray tube about one-half inch from Dr. Dudley's hair and made a one-hour exposure. Nothing developed on the plate, but 21 days later there did develop a two-inch bald spot on Dr. Dudley's head. This was the world's first demonstration of the depilatory action of x-ray and was published in the *Medical Record of New York* in 1896.

Even to this day there exists in the Vanderbilt Radiology Department a photograph of x-ray plates made in 1896 showing the bones of the hands of three generations of the same family, the grandfather being Bishop Fitzgerald; the son, Will Fitzgerald; and the grandson, Adolphus Nye. The excellent quality of the plates still show the age differences in the bone quite clearly. There is also a plate of Mrs. Daniel's hand taken that same year, of interest in that the diamond in her ring did not cast a shadow.

It was for other investigators later to claim the credit for making this tool available to the jewelry industry in distinguishing true from false diamonds.²²

Operations as performed in the hospitals at the turn of the century deserve comment. The preparation for the operation was in itself a fairly taxing procedure for the patient. By 1904 and 1905, the Lister theory of germs was very much in evidence in the Middle Tennessee area and each surgeon took great care to see that it was carried out. The patient usually was brought into the hospital the evening before the operation (as for example, for an acute gallbladder or appendicitis) and the abdomen was scrubbed that night with tincture of green soap and a stiff-haired brush "until it damn near killed him." His abdomen was then again covered with tincture of green soap and the film of soap was left on the abdomen until the following morning. A variation of this was to leave a pack moistened with soap on the abdomen during the night. Also, that night the patient usually was given a large dose of calomel and salts and by the following morning he was, needless to say, considerably dehydrated. The pre-operative medication usually consisted of $\frac{1}{4}$ grain of morphine and $\frac{1}{150}$ grain of atropine.^{12,17} The abdomen was again scrubbed mercilessly at this point with tincture of green soap and a stiff brush, then painted with iodine and the iodine removed with alcohol. Four sterile towels were put on the abdomen, leaving the incision site bare. Ether was used almost exclusively at this time and was dripped through a mask. It was only in "desperate cases" (this seems to have meant the surgeon's preference here) that chloroform was used. Fluids were given exclusively by clyses at that time postoperatively until the patient could drink. For years, the housestaff and nurses held the bottles in the air until someone cleverly thought of the IV pole.¹³ Intravenous fluids were not available. Although rubber gloves had been introduced by Halstead in about 1890, some of the Nashville doctors staunchly refused to use rubber gloves for some time, and as late as 1905, Dr. Charles Brower, then Chief of Surgery at St. Thomas Hospital, still had

not yielded to the custom. It is recalled that Dr. Brower on occasion was known to operate in the hallways at St. Thomas if the operating rooms were busy and he was in a hurry.^{14,15}

Not only were the preoperative and postoperative management of the surgical patient considerably different than today, but there were other problems as well. Such things as disposable scalpel blades, of course, were not known, and Nashville City Hospital employed a full-time knife sharpener. As late as 1911, it is recalled that an old white man sat all day long in the downstairs hall of the Nashville City Hospital over a grinding wheel which he treaded by foot. Scissors, scalpels and any surgical instruments belonging to the hospital were sharpened. In addition, Drs. Burch, Haggard, Douglas, Barr, and most of the other surgeons of Nashville, brought in their instruments from time to time and left them with him for a few days to have them sharpened and pick them up later.¹³

It might be said, in conclusion, that from any point of view during the past 75 years, and even earlier, the practice of medicine in the Middle Tennessee area has been of a high caliber. Assuming this is true, and I think it is in contrast to many areas of the country, one searches for a reason for this, and it seems to lie in the healthy competition that has existed over the years in the medical profession. During the 1800's and up until about 1910, the several medical schools in the area were in continuous competition with each other. The private practitioner usually was the teacher in the school and did his job well, not only for the patient's benefit but from a teaching point of view. By 1911, 3 of the 5 Middle Tennessee medical schools had left, and since then Middle Tennessee has supported only 2 medical schools, Vanderbilt and Meharry. This in itself took away much of the competitiveness and centered the medical power in fewer hands.

It would be naive to say that there were not personality differences over the years. Chancellor Kirkland is often mentioned as attempting to center power in Vanderbilt between 1900 to 1925, even prior to the building of the new medical school. There

were times when he was accused of attempting to completely control the Nashville City Hospital, even to the point of limiting the doctors on the staff, the types of patients to be admitted, etc. This was never fully carried out because of resistance on the part of the Nashville private practitioners. These problems were heightened in 1925 when the private practitioners, who up until then had been the professors in the clinical teaching at Vanderbilt, were suddenly relegated to the outpatient clinics and full-time professors were brought in. Although this on many occasions created strong differences of opinion, the balance of power again became distributed in such a way that healthy practice continued and significant stalemates did not materialize. One watched in the 1920's and early 1930's the disappearance of the private infirmary to be replaced by single specialty groups and one, from time to time, has seen weaknesses in the University System when professors were relegated to full-time classroom teaching with very little practical experience. On the other hand, the practitioner has undoubtedly attained higher levels of competence because the academician was there to question and at times criticize him.

In recent years, the tempo of medical practice has quickened and knowledge has been disseminated through journals much more than in any other previous era. It is rare to find doctors practicing in Middle Tennessee now who have not been disciplined, at least in part of their training, in other areas of the country. Active teaching programs have developed at the private hospitals and, more recently, the power structure has been divided largely on a hospital basis as these institutions have gained more and more influence and beds have become more limited. Early in this century, the severely ill patients, especially from a surgical point of view, were referred to the Nashville hospitals, but in more recent years, the smaller neighboring communities have developed their own hospitals. The McFarland Hospital in Lebanon was established in 1917, the Murfreesboro General Hospital in 1926, the Clara Epperson Hospital in Cookeville in 1926, the

Robertson County Hospital in Springfield in 1935, the Dan German Hospital in Franklin in 1937, Queen City Infirmary in Tullahoma in 1941, the Maury County Hospital in 1953, the Clarksville Memorial Hospital in 1954, the Perry County Hospital in 1956, the Goodlark Hospital in Dickson in 1958, the Lawrenceburg Hospital and the Nautilus Hospital in Waverly in 1961, and the Warren County Hospital in McMinnville in 1963. Many of these hospitals have now become quite sophisticated and have a staff capable of performing most of the general surgical procedures, and from a medical point of view many have established their own coronary care units. All this has served to further widen the balance of power and to heighten healthy competition in the medical profession and, I think by all criteria, has improved the practice of medicine where it counts most, namely, from the patient's point of view.

You have reviewed with me today Middle Tennessee Medicine in the earlier portion of the 75 years The Middle Tennessee Medical Association has been in existence. Where in all of this does our organization fit? I hope so deeply in its midst that to try to separate it from the people and practices mentioned is obviously impossible. Thank you for your attention today. We have a great heritage in this organization which is Middle Tennessee Medicine.

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A Regional Medical Program Acts To Help Relieve the Health Care Crisis*

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Regional Medical Programs seek to improve quality of health care by finding ways to transmit the latest medical information and skills to physicians, nurses, and other health professionals,—that is, to close the “science-to-service” gap. Hence, the Program’s sponsors in the Tennessee Mid-South Region are (logically) the Region’s two medical schools in Nashville, the Meharry Medical College and the Vanderbilt University School of Medicine.

As charted by Public Law 89-239, the Program focuses on improving health care especially for patients with heart disease, cancer, stroke and certain related diseases, the killers of nearly 70% of the Region’s people. The methods used in the program recognize that health care is a private matter between health professionals and patient and do not interfere with its established private pattern of practice. Rather, the methods include (1) improved educational techniques and programs, (2) demonstration health care projects, and (3) staff activities and studies toward developing more effective projects and program impact.

Our first year’s operations reveal that the Program’s effectiveness has been somewhat limited, however, by the Region’s “health care crisis.” This presentation first sketches the situation confronting the Region’s citizens and its providers of health care, and then details this Program’s initial responses.

Appraisal

The “health care crisis” is a potentially explosive, brewing mixture containing at least these ingredients: (1) increasing demand for health care; (2) decreasing availability or access to health care; (3) overload pressures forcing a decline in quality of health care; and (4) increasing costs of health care. It is worthwhile to analyze some of the elements of each:

Increasing Demand. In an expanding and more affluent population, more people have money to buy health care, Medicare and Medicaid mechanisms have increased these fiscal pressures. Increasingly potent diagnostic and treatment procedures are providing better medical care and, as a result, greater numbers are seeking these services. Another factor contributing to this increased demand is a growing sense that “good health care is a right of citizenship,” or at least that good health care “should be realized” within an affluent society. Additional elements of demand are inherent in certain statistics which are becoming more widely appreciated:

Mortality in the middle years is higher in the United States than in several other nations in the world.

The premature birth rate and mortality rate decline as income rises and are indeed high for people having low incomes.

Mortality is not evenly distributed in the population, but experienced more among nonwhite than in white groups.

Chronic disease conditions are also unequally distributed in the population and tend to concentrate among the poor.

Decreasing Access. The time that can be allotted to each patient by the physician or nurse has decreased. In a recent study of the Tennessee Mid-South Region conducted by Mr. Richard Sacks, a sophomore medical student at the Meharry Medical College, and with the aid and support of Dr. Charles C. Trabue, Area Coordinator for the Mid-Tennessee Area, the data clearly indicates the ratio of 118 physicians per 100,000 population to be well below the national average of 141 per 100,000. In some of the areas of the state, such as the South Central and the Upper Cumberland, the density of physicians is still lower, approximately 60 to 70 per 100,000. Moreover, the trend of this ratio in the more rural areas has been generally downward for 40 years. Data for nurses reveals an even greater

*From the Regional Medical Program, for Mid-South, Nashville, Tenn., 37203

shortage. A document* prepared by the State Comprehensive Health Planning Agency confirms these estimates in detail.

Modern methods for diagnosis and treatment are more complex and require more time per patient; hence, the number of patients who can be cared for per unit time is reduced.

Specialization among health professionals clearly affords more expert care for certain illnesses. However, patients' erroneous self-diagnosis in selecting the appropriate specialist causes increased delays, confusion and cost to the patient. Specialization also means that the "average ratio" of doctors to population *over-estimates* patients' general access to medical care at least until the illness is specified.

Overload Causes Decline in Quality of Health Care. Increased demand has brought about little change in the organization of time and functions in medical practice except that many health professionals throughout the Tennessee Mid-South are working harder and longer hours.

New knowledge, and the skills to apply it, continue to be developed in the medical schools and centers, but as health professionals become busier, increasingly overwhelmed by patient loads, each has less time and psychic energy to keep abreast of this progress. Therefore, the science-to-service gap actually tends to widen between the new knowledge and skills as developed in the university medical centers and those applied to the care of patients.

Finally, it is not difficult to see that these supply and demand imbalances, increased costs of technology and of specialized operator personnel, and inflationary pressures in the economy cause health care costs to rise.

The Explosive Mixture. The combination of shortages in available health services, increasing costs, decline in quality as implied by the increasing science-to-service gap, and rising expectations in the population about health care defines a crisis situation, and also creates a political imperative

that effective solutions be found. The national consensus at this time is that Regional Medical Programs have a role in developing some of these solutions.

The RMP Responds

The fundamental fact is that no single existing element in our private health care system, no individual health professional or institution, has assigned cognizance of the entire situation or has the time or broad-gauged professional competence to develop and test possible solutions. Rather, each overloaded professional person and institution is necessarily and increasingly preoccupied within the scope of his own responsibilities. The same also applies to most persons who are not health professionals. Regional Medical Programs, however, can help to design and build useful relationships between provider elements of the health care system to achieve useful arrangements which are not accessible to any one element operating individually.

For example, the plight of increasingly burdened, usually solo practitioners in the Region's rural areas can be assisted in the framework of private medical practice. The central objectives of such assistance is recruitment of newly trained and graduated health personnel—physicians, nurses, practice assistants, technologists and others. In our view, such recruitment may become possible (a) if the current and historical failure of conventional approaches is recognized, i.e., recruitment of individual physicians into existing practice situations, and (b) if innovative steps are taken to make it possible for the modern professional graduate to deliver quality health care at a level and scope commensurate with this training.

Among such innovative approaches now envisioned by the Tennessee Mid-South Regional Medical Program is to explore with interested practitioners the development of a "health care consortium" (not necessarily a "group practice") to which new well trained health professionals can reasonably be recruited. Such "recruitability," especially for newer graduates, may be enhanced as the developing arrangement expresses the following critical features:

*Physicians in Tennessee, 1969: Manpower, Office of Comprehensive Health Planning, Tennessee Department of Public Health, Nashville, Tennessee, January, 1970.

(1) It provides each practitioner with free time between on-call schedules for his own study (continuing education) and recreation;

(2) It provides for ready entree and disengagement of members in an open system, and retains the widest possible choice of providers for the people being served;

(3) As a health care entity, it is sufficiently staffed, equipped, capitalized, and also linked to larger reference and consultation centers, in order to permit its physicians to practice and its patients to receive first-rate health care;

(4) It readily accommodates innovative technology and methods in response to new developments applicable to problems in health care delivery;

(5) It understands and responds to the need for comprehensive health care as perceived in the community-service-area, assists the community to understand and utilize modern health care, (to include health care maintenance methods), provides adequate access and enough bed capacity for both the sick and the well, and so wins adequate participation and financial support from the community. Area-wide Comprehensive Health Planning Councils may become vitally important in these latter efforts.

Innovative *models* having such characteristics are under study and development to permit approaches to such varied circumstances, for example, as (1) rural communities without resident physicians, (2) separated communities in functional geographic relationship, each with one or two physicians, and (3) single population center with strong medical groups surrounded by more or less remote villages without competent local health care. Allied health personnel to provide appropriate elements of health care, up-to-date diagnostic and treatment methods, and automated data management are regular components of such models, as is coordinated involvement of public health personnel and facilities. Each locale will adopt or adapt initial designs to its own needs, on a voluntary basis, to establish a health care system. Area-wide Comprehensive Health Planning Councils may become vitally important in

these efforts. Such systems are "recruitable" because they are personally and professionally satisfying to physicians and other health professionals; and they are "supportable" by the community because they appear reasonably able to meet most health care needs of all citizens comprehensively, equitably, and responsibly. Recently graduated specialists as well as generalists may therefore opt for such a rural health care system without being asked or forced to compromise the quality of professional care which they are trained to give; and the people they serve are not required to accept less because the location is rural.

Specific Actions

The task confronting society, the health professions and the RMP is to help bring such individualized arrangements into being as will serve our communities and health care providers in need. For these purposes, the TMS/RMP has taken the following actions:

(1) Approval has been obtained for this Program thrust from the Program's governing Regional Advisory Group, and from the Tennessee Medical Association. (House of Delegates Resolution 13-70, passed April 11, 1970).

(2) The Program staff is prepared (and has begun) to furnish technical development assistance in specific locations, in terms of requirements for nursing and allied health personnel, community health aspects, analyses of health economics, analysis of local social attitudes and behavior supporting health activities, and development of local health information programs.

(3) Additional expertise is being attracted by the Program for assistance in management concepts and methods, biomedical engineering and technology, health economics and the social sciences.

(4) The Program's Area (subregional) Coordinators have located approximately 25 physicians in 12 locations who have expressed interest in exploring these possibilities with us. On-site staff consultations with them are proceeding appropriately.

(5) Pilot projects in health care delivery are to be supported by the Program's funding mechanisms.

(6) The Director of TMS/RMP meets regularly for appropriate coordinations with the State Health Commissioner, the State Director of Comprehensive Health Planning, and the President of the Tennessee Medical Association. This group may enlarge as the agenda grows. In specific locales, coordination as these consortia develop is accomplished with the CHP-b area-wide planning councils.

The Program's responses, in short, are: (1) to develop individualized models for improved health care delivery in each co-operating locale, (2) to assemble and deploy technical assistance for this purpose from Program staff and available additional sources of expertise, (3) if appropriate, to help activate such new models by means of demonstration projects, and (4) to coordinate, with our provider oriented effort those community based efforts and programs (e.g., development districts, Comprehensive Health Planning, State Department of Public Health) which can develop matching action in the beneficiary communities.

It seems reasonable to expect that such

coordinated efforts can and will achieve the common goal of high quality, comprehensive health care for all citizens of the Region.

In Conclusion

The Regional Medical Program relates naturally to providers of health care. It has been well said that no one has found a way to develop a health care system without health care providers. Today's health care system is in deep distress. Its rescue by non-coercive means should be the concern of every health professional, as well as every community where adequate access to quality health care is deteriorating, or is not equitably assured to all citizens. Led by professionals, supported by professional associations, employing effective models of health care delivery, assisted by staff and project activities of the Regional Medical Program, and in cooperation with Comprehensive Health Planning, Public Health and other health agencies, this broad-gauged partnership in health may yet relieve the crisis in health care which is upon us.

* * *

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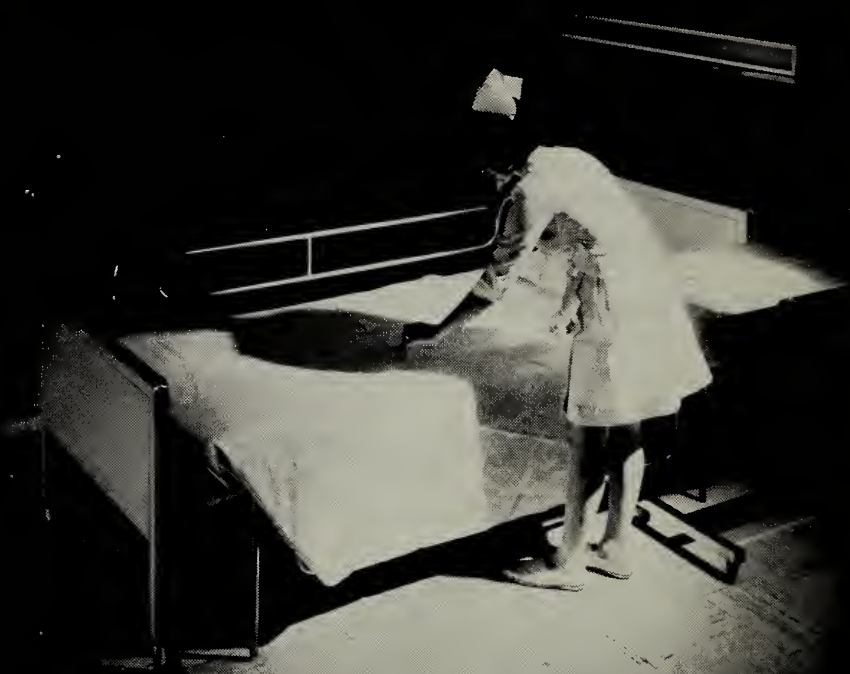
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from the
Executive
Director
J. Ballentine

MEDICAL DIGEST

News of Interest to Doctors in Tennessee

NOW IS THE TIME FOR COUNTY SOCIETIES TO ELECT OFFICERS AND DELEGATES . . .

Secretaries of all county medical societies have recently received information and appropriate forms for use in following the provisions contained in the TMA By-Laws, to elect their officers, and delegates for the TMA House of Delegates, and report those elected to the Tennessee Medical Association by January 1, 1971 . . . It is urged that all societies conduct their elections before the end of December . . . The names of delegates are needed in order that the Nominating Committee can be appointed by the Board of Trustees and the names of the committee members can be sent to the county medical societies for informing their members of the composition of the Nominating Committee.

* * * * *

HANDBOOK MAILED TO PHYSICIANS FOR MAKING EVALUATION UNDER SOCIAL SECURITY . . .

TMA'S Committee on Rehabilitation has been cooperating with the Disability Determination Section of the Division of Vocational Rehabilitation, and has assisted the Division and the Social Security Administration to evaluate claimants for disability benefits . . . A letter has been sent to all physicians along with a handbook that will help practicing physicians with evaluating claimants under this program . . . Physicians should find the handbook an excellent tool for their use in determining these disabilities. Member physicians of TMA involved in this program are urged to refer to the handbook.

* * * * *

WHAT IS PRO?—WHAT IS PSRO? . . . The Senate Finance Committee, in considering H.R. 17550, the Social Security amendments of 1970, announced that it has modified and accepted the amendment offered by Senator Bennett (R), Utah, which calls for the creation of "Professional Standards Review Organizations" (PSRO) under Medicare and Medicaid. The amendment provides for the review of providers services furnished under Medicare and Medicaid. Medical witnesses appearing before the Committee called for significant changes to the Bennett Amendment and voiced medicine's objections to its provisions. The American Medical Association sponsored, and has been instrumental in proposing the Peer Review Organizations (PRO) . . . PRO leaves the responsibility for utilization review in the hands of physicians, while the PSRO program goes considerably further in the review mechanism . . . TMA has forwarded detailed information on the definition of the two programs and exactly what they do, to all county medical society officers . . . PRO was incorporated into the AMA-sponsored Medcredit Bill because the medical profession recognized the need for an appropriate means of providing surveillance over the provision of medical services rendered within the program. PRO would act to review the reasonableness of charges made, as well as the need for and quality of the medical services provided . . . The Bennett Amendment calls for national establishment of PSRO's at state district levels where there are at least 300 practicing physicians. This differs

from AMA's PRO proposal that called for state medical associations to be given first priority in establishing review mechanisms . . . PSRO's would be formed by January 1, 1972 . . . Medicine's representatives recommended to the Senate Finance Committee that since the concept of peer review as a structured mechanism is new, that it would be wise not to cast its future direction in statutory language at this time.

* * * * *

QUESTIONS ABOUT LEGAL MATTERS . . . Members of the staff of TMA frequently receive legal inquiries which from time to time are referred to the Association's legal counsel . . . Most of the questions relate to the following: (1) Abortion Law, (2) Truth-in-Lending-Law, (3) Law with respect to professional corporations, (4) Mental Health Law, (5) Basic Science Law, (6) Law with respect to admission to staffs of hospitals, (7) Medical Licensing Law, (8) Air and Water Pollution Laws, (9) Child Abuse Law, (10) Workmen's Compensation, (11) Status of Physicians' Assistants, (12) Use of paramedical personnel, (13) Corporation practice of medicine, (14) Statute of limitations with respect to retention and preservation of records, (15) Licensing requirements of clinics and proprietary hospitals, (16) Method of payment under federal and state health program laws, (17) Emergency medical services, (18) Malpractice insurance, (19) Narcotics laws, (20) Inquiries concerning legislative matters, (21) Statute permitting treatment of minors for venereal disease without parental consent, (22) Encroachment on practice of medicine by non-medical practitioners.

* * * * *

TMA TRUSTEE RESIGNS . . . Byron O. Garner, M.D., a member of the Board of Trustees from West Tennessee, has resigned as a member of the Board. Dr. Garner's term runs until April, 1972 . . . Chapter IX, Section 4, of the Constitution provides that in the event of a vacancy by resignation of any member of the Board of Trustees, between the Annual Meetings of the Association, the Vice-President for that division of the state in which the vacancy occurs, shall serve as a member of the Board of Trustees until the next Annual Meeting . . . J. Kelley Avery, M.D., Union City, Vice-President from West Tennessee, will assume the Trustee position vacated by Dr. Garner until the Annual Meeting in 1971.

* * * * *

TMA'S 1971 ANNUAL MEETING . . . Will include scientific programs and featured speakers . . . TMA will present two outstanding nationally known speakers on Friday, April 16, 1971, presenting some of the most important subjects of the day other than scientific. The 1971 Annual Meeting will be conducted in Chattanooga with headquarters at The Read House Hotel, April 15-16-17 . . . Sixteen medical specialty societies will conduct their annual meetings concurrently with TMA . . . Sessions of the House of Delegates will be held on Wednesday evening, April 14, and Saturday morning, April 17. Mark your calendar now and make plans to attend TMA's outstanding Annual Meeting in 1971.

* * * * *

NEWS YOU CAN USE . . . Peer Review Organizations and medical foundations are getting more and more attention in government. Washington sources see distinct possibility of mandatory peer review legislation by Congress before the end of the year . . . Tennessee has two physicians who will serve in the 87th Tennessee General Assembly. They are G. H. Berryhill (R), Jackson, Incumbent, John H. Peebles, M.D. (R), Memphis, Incumbent, and both will be members of the House of Representatives.

Public Service

Communications Legislation

Hadley Williams, Public Service Director

PEER REVIEW COMMITTEE DEVELOPS GUIDELINES . . . The TMA Peer Review Committee met recently to develop procedures and policies that will be followed by the committee in order to carry out their duties and responsibilities as the State Peer Review Committee. Established by the House of Delegates through Resolution 2-70 last April, the committee also developed suggested guidelines for use by county medical societies. All county medical societies have received the committee's suggestions regarding the establishment and implementation of peer review on the local level. The TMA Committee which is composed of the last five surviving past presidents of the Association, stated that the peer review mechanism should be considered as a positive approach to solving any of the inadequacies and/or irregularities in providing quality health care and that their primary duty will be the maintenance of the quality of medical care furnished to the patient. The State Committee will act only as an appellate body when decisions have been made by a local medical society peer review committee. In those areas where no local peer review committee exist, the State Committee will assume the role of a primary investigating body. The District Councilor is an ex-officio member of all peer review committees within his councilor district and the committee shall refer its findings, regarding peer review decisions, to the TMA Judicial Council for their consideration and action where indicated. The TMA Peer Review Committee urges all county medical societies to give immediate attention to the establishment and operation of a Peer Review Committee on the local level. It is particularly important due to the current effort in Congress to include the requirement of a peer review mechanism in pending amendments to Medicare and Medicaid.

* * * * *

RURAL HEALTH CONFERENCE HELD . . . The 8th Tennessee Rural Health Conference was held in Milan, October 7, 1970, with more than 400 persons in attendance. Co-sponsored by the TMA Rural Health Committee, Tennessee Farm Bureau and University of Tennessee Agricultural Extension Service, the one-day meeting was one of the most successful ever conducted. Topics discussed included Health Manpower, Community Mental Health Centers, Farm Safety, Nutrition and Drug Abuse. Two students from the University of Tennessee College of Pharmacy conducted a drug education program which was the highlight of the meeting. Dr. Charles A. Trahern of Clarksville is chairman of the TMA Committee and presided over the Conference. Committee members Julian Lentz, M.D. of Maryville and F. Houston Lowry, Jr., M.D. of Madisonville also attended.

* * * * *

TMA TO SPONSOR 1971 TRAVEL TOUR . . . The TMA Board has authorized the Association to offer a 14-day tour of the Orient to the membership in 1971. The private group tour, first sponsored by TMA, will leave Nashville, August 6, 1971 for a 14-day tour of Japan and Hong Kong. A

side trip to Bangkok, the colorful capitol of Thailand, will also be made available. A private, chartered 707 Jet will take TMA members, wives and children direct to Tokyo. Also available for those interested will be medical seminars for continuing education held in the Medical Centers of Tokyo and Hong Kong. An official announcement and complete details regarding the tour will be mailed to the TMA membership in the near future.

* * * * *

LEGISLATIVE COMMITTEE MEETS AND MAKES PLANS . . . The TMA Legislative Committee met September 27th to formalize plans for the forthcoming session of the Tennessee General Assembly. Among the topics discussed were proposed changes in Tennessee law regarding abortions, licensure of children to operate motor driven cycles, elimination of reciprocity in the basic sciences for graduates of non-accredited schools; emergency medical services; emergency hospital admissions for mentally disturbed individuals; safety treatment of eyeglasses; professional liability insurance and establishment of a State Eugenics Board. TMA policy regarding Abortions was established by the House of Delegates in 1967 and remains in effect. Any legislation in this area must include the safeguards adopted by the House before endorsement or support is offered by TMA. The elimination of Licensure for 14 and 15 year old children to operate highpowered motorcycles will be sought by TMA. Legislation to eliminate graduates of non-accredited schools of medicine, osteopathy and chiropractic from gaining licensure via reciprocity will also be sponsored by TMA. The Committee voted to lend support to legislation which would permit emergency hospital admission for a mentally ill person with the rights of the individual being preserved. The Committee accepted a recommendation from the Tennessee State Academy of Ophthalmology and Otolaryngology that legislation be sponsored to require the lens of all eyeglasses dispensed in Tennessee to be safety treated and that inflammable materials be eliminated from eyeglass frames. The Committee took under advisement problems regarding professional liability as well as the establishment of a State Eugenics Board and no specific conclusions or recommendations regarding legislation were reached at the meeting. The Committee decided to again provide a Capitol First Aid Station for the members and staff of the 87th Tennessee General Assembly. The facility will be co-sponsored with the Tennessee Hospital Association as in the past and MD volunteers to staff the station will be requested once again. The Assembly will convene January 5, 1971 for a 15-day organizational session and will begin its regular session February 23, 1971. It is expected that the Assembly will divide the 90-legislative meeting days in order to hold sessions in both 1971 and 1972. The TMA Legislative Committee will conduct a one-day meeting prior to the February convening date for all Contact Doctors, County Society Officers and Physicians interested in the legislative process. Details will be announced soon.

* * * * *

LAST REMINDER FOR MEDICARE CLAIMS . . . The fiscal intermediary for Medicare in Tennessee, Equitable Life Assurance Society, reminds physicians that all claims for services rendered to Medicare recipients between October 1, 1968 and September 30, 1969 must be received at Equitable's Nashville Office by December 31, 1970 in order to qualify for reimbursement. Physicians should double check records of their Medicare patients and submit claims for any services rendered during the 12 month period above before the cut-off date. Equitable's mailing address is P.O. Box 1465, Nashville, Tennessee 37202.

President's Page

The AMA-TMA-and YOU



TOM E. NESBITT

On more than one occasion during the past several months some Tennessee physicians have posed questions such as these: 1) "Why should I belong to TMA and AMA?" 2) "What am I getting for my AMA and TMA dues?" 3) "What does the AMA or TMA do for me?"

Considering the necessary increase in membership dues by these organizations, such questions are timely, valid and worthy of an answer. Let's start with the AMA, and a few basic facts and figures. There are approximately 320,000 physicians in the U.S. of which 217,000 belong to the AMA, but only 165,000 are dues paying members. Dues money accounts for only 28% of the AMA budget, while over 70% comes from advertising and exhibit income. If the AMA lost this income and the membership was thus required to fund the entire cost of the AMA activities, AMA dues would approach \$200 a year. In 1971, because of increased operating costs and the loss of tax exemptions formerly allowed on income-producing activities, your AMA dues will be slightly over \$9.00 a month—\$110.00 annually.

The many tangible benefits to you of AMA membership were recently outlined in *American Medical News* by the Chairman of the AMA Board of Trustees. These benefits include practice management advice, group disability insurance programs, retirement plan, excellent scientific seminars and meetings, medicolegal information, scientific films, drug information, an outstanding scientific library and a host of vital publications. For example, AMA is one of the world's largest publishers with an annual budget of over \$12,000,000. The *American Medical News* is published weekly with a circulation of 350,000; *JAMA* is furnished every two weeks to over 220,000 doctors; *Today's Health* with a circulation of 700,000 appears monthly; ten specialty journals are distributed monthly to over 226,000 recipients; extensive additional publishing services are provided to the general public, State and County medical societies, and other organizations.

Conducting the business of the association requires over 1000 meetings each year, involving over 900 physicians who serve without pay on the various councils and committees. Annually the AMA sponsors over 400 scientific exhibits and 300 drug exhibits at the annual and clinical sessions.

An appreciation of the intangible benefits of AMA membership, however, is the real key to the organization's continued role of successful leadership in American medicine. AMA's work is primarily devoted to helping physicians practice better medicine as we participate in evaluation of the changing world of medicine from both scientific and socio-economic aspects. You and I are the AMA when we are involved in such affairs as medical ethics, peer review, hospital accreditation, and educational programs. The AMA functions to outline and provide guidance in areas of service which *must* be performed by members of the profession—or someone else will do it for us.

Your State association offers similar benefits. The more than 2400 TMA members who participate in the association's group professional liability insurance program save enough in premiums annually to more than cover the cost of dues and the program is only one of nine money saving group insurance plans offered by TMA to its members.

When you voluntarily join your State and National medical associations you become the recipient of the vast skills and experience of a central organization, and a participant in the strong, unified voice on national issues affecting both your patients and the profession. Financial participation *alone* is not enough. Individual involvement in the affairs of medicine by every dues-paying member is the only answer to assuring a responsive, meaningful AMA and TMA.

Sincerely,

M.D.

President

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OF THE
TENNESSEE MEDICAL ASSOCIATION

Published Monthly

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Tennessee

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NOVEMBER, 1970

EDITORIAL

TETANUS IMMUNIZATION

Tetanus is a particularly lethal yet totally preventable disease that in the United States most often affects adults.¹ Tetanus toxoid is an exceedingly effective almost ideal immunizing agent. When tetanus toxoid is given according to accepted recommendations, there are almost no side effects and immunity of long duration is provided. Failure of protection is so rare than even if reported "failures" are accepted largely at their face value the prev-

alence in the population is less than four persons per one hundred million per year. There is no natural immunity to the tetanus organism or its toxins, and the only major contraindication to tetanus toxoid immunization is a history of previous severe reactions. The presence of fever is a possible contraindication to routine tetanus toxoid immunization. Since the overall case fatality ratio for tetanus is about 60%, preventive measures are strongly indicated.

Starting in 1954 the number of tetanus patients aged 35 years and older has been greater annually than the number of tetanus patients age 1 to 34 years, and in recent years there have been five times more patients in the older age group. The number of deaths from tetanus has declined steadily since 1900, but since it became routine in the 1930's to administer tetanus toxoid to infants and children, the tetanus mortality rate for children and young adults has declined more rapidly than the rate for middle-aged and elderly persons. In recent years the tetanus mortality rate has been about ten times higher for persons 35 years of age and older than for persons from 1 to 34 years old.

Associated with the lower mortality rates for the young people, the mean age of people dying from tetanus has more than doubled. Between 1900 and 1935 the mean age for persons dying from tetanus after the first year of life was about 26 years, but by 1967 it had risen to 57 years of age. This striking shift is primarily due to greater improvement in immunization levels in young persons as compared with adults. In addition, it may be related to the increase in the number of elderly persons in the United States.

Since serologic studies of tetanus immunity have shown that a high percentage of the middle-aged and elderly do not have protective antitoxin titers against tetanus,² it seems logical to suggest that an active immunization program should be undertaken to provide all individuals with satisfactory immunity against this dread disease. There are a few questions that need to be answered when making a decision about tetanus immunization. First, how many doses of tetanus toxoid has the patient re-

¹Brook, G. F., Buchanan, P. M., Durrett, J. V.: Tetanus Toxoid Immunization of Adults: Continuing Need, *Annals of Int Med* 73:603-606, 1970.

²Levine, L., Wyman, L.: Survey of Immunity by Serologic Methods: Result of Three Successive Surveys of Sample of the Mass. Population for Diphtheria and Tetanus Antitoxin: *New Eng Journal of Med* 272:23-26, 1965.

ceived previously and second, when was the last dose? Using this information a physician can plan an immunization schedule based on how many intramuscular doses of adsorbed toxoid are needed to provide protection against tetanus.

Adult patients are said to be adequately immunized who have received a three-dose primary immunization series in the previous 10 years, or the three-dose series at some earlier time plus a booster within the previous 10 years. Patients who are not "adequately immunized" but have received toxoid immunization at some previous time can be started at an intermediate point in the immunization sequence. Routine booster doses of tetanus toxoid need only be given every 10 years thereafter. An adequately immunized person with a tetanus-prone injury does not need an emergency dose of tetanus toxoid provided he has a well documented history of having been "adequately immunized." Inadequately immunized patients should have their immunization status brought up to date. Previously unimmunized patients with tetanus-prone injuries should be given massive protection with human tetanus-immune globulin at the same time the necessary injections of tetanus toxoid are begun.

If these recommendations were followed universally, tetanus in adults would become a disease of the past and the potential for adverse reactions from hyperimmunization could be reduced. *If every county medical society would promote tetanus immunization of all people as a major project, this disease could certainly be eliminated.*

A. B. S.

IN MEMORIAM

Ebert, Albert Fritz, Chattanooga. Died September 3, 1970, Age 75. Graduate of Vanderbilt University School of Medicine, 1924. Member of the Chattanooga-Hamilton County Medical Society.

Lentz, John J., Nashville. Died September 29, 1970, Age 85. Graduate of Vanderbilt University School of Medicine, 1906. Member of the Nashville Academy of Medicine.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES



New Members

The *Journal* takes the opportunity to welcome these new Tennessee Medical Association members.

CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY

Hathaway K. Harvey, M.D., Chattanooga
Noel C. Hunt, M.D., Chattanooga
Jay Frederick Lewis, II, M.D., Chattanooga
Charles D. McDonald, Jr., M.D., Chattanooga
Arthur M. Owens, M.D., Dunlap

WASHINGTON-CARTER-UNICOI COUNTY MEDICAL SOCIETY

Lloyd T. Brown, M.D., Elizabethton

ROANE-ANDERSON COUNTY MEDICAL SOCIETY

The Roane-Anderson County Medical Society met on September 29 at the Oak Ridge Hospital. The Scientific speaker was Dr. J. S. Goodman, assistant professor of medicine at Vanderbilt University Medical School, whose topic was "The Newer Antibiotics."

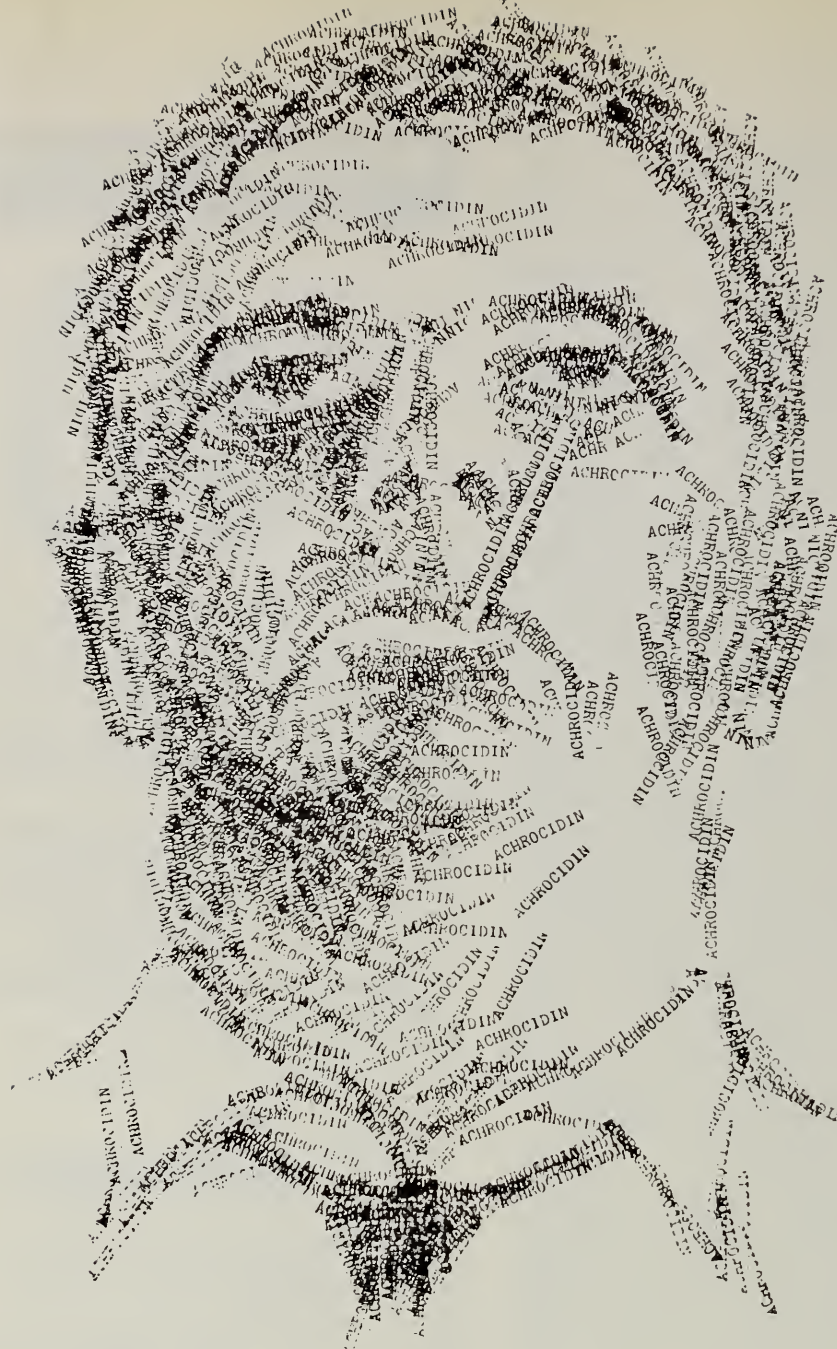
The President of the Roane-Anderson County Medical Society is Dr. Henry B. Ruley, Oak Ridge, and Dr. James T. Gillespie, also of Oak Ridge, is Secretary.

NATIONAL NEWS

The Month In Washington (From Washington Office, AMA)

The American Medical Association emphasized that the quality of medical care should not be sacrificed for the sake of economy in government health care programs.

Dr. William O. LaMotte Jr., of Wilmington, Del., chairman of the AMA's Council on Legislation, repeatedly stressed the importance of assuring high quality care in



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Warning: In renal impairment, since liver toxicity is possible, lower doses are indicated; during prolonged therapy consider serum level determinations. Photodynamic reaction to sunlight may occur in hypersensitive persons. Photosensitive individuals should avoid exposure; discontinue treatment if skin discomfort occurs.

Precautions: Drowsiness, anorexia, slight gastric distress can occur. In excessive drowsiness, consider longer dosage intervals. Persons

on full dosage should not operate vehicles. Nonsusceptible organisms may overgrow; treat superinfection appropriately. Treat beta-hemolytic streptococcal infections at least 10 days to help prevent rheumatic fever or acute glomerulonephritis. Tetracycline may form a stable calcium complex in bone-forming tissue and may cause dental staining during tooth development (last half of pregnancy, neonatal period, infancy, early childhood).

Adverse Reactions: *Gastrointestinal*—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. *Skin*—maculo-

papular and erythematous rashes; exfoliative dermatitis; photosensitivity; onycholysis, nail discoloration. *Kidney*—dose-related rise in BUN. *Hypersensitivity reactions*—urticaria, angioneurotic edema, anaphylaxis. *Intracranial*—bulging fontanels in young infants. *Teeth*—yellow-brown staining; enamel hypoplasia. *Blood*—anemia, thrombocytopenic purpura, neutropenia, eosinophilia. *Liver*—cholestasis at high dosage.

Upon adverse reaction, stop medication and treat appropriately.



LEDERLE LABORATORIES, A Division of American Cyanamid Company, Pearl River, New York 10965

testimony at a Senate Finance Committee hearing on proposed changes in medicare and medicaid.

He also pointed out the advantages of the AMA's plan for review of physicians' services aimed at holding down costs over an alternative proposal before the committee. The AMA supported a provision of the proposed legislation that would provide for physical therapy services but opposed including chiropractic services under medicare.

Dr. LaMotte said that there should be pilot projects before a "Health Maintenance Organization" program is started nationwide. A HMO would provide both hospitalization and physicians' services for medicare patients for a set per capita amount.

"There are questions regarding in-fact cost savings, as well as the quality of health care which may be provided when there are economic incentives to providers to reduce utilization," the AMA spokesman said. "We wish to assure that medicare patients uniformly receive the best quality care.

"To this point of quality care, we have one additional concern. As defined in the bill, the HMO may be a 'for-profit' organization and one managed, controlled and operated by lay individuals. Under such circumstances, the incentive for profit and/or lack of the basic essentials of knowledge, training and experience in medical matters could result in the patient being furnished less than the optimum of quality care. To avoid such a result, we recommend that organizations delivering health care should be under the control and guidance of medical personnel."

Dr. LaMotte also questioned the desirability of a provision that would restrict payments to institutions.

"Will this section create different classes of services based upon the ability or desire of patients to pay for additional services?" Dr. LaMotte asked. "A goal of medicare was to make available to all over 65 persons the same level of health care available to other individuals. Has that goal now been changed?"

He assured the committee that the nation's physicians as a group "share the concern of the public and the Congress"

concerning rising health care costs. But, he said, the AMA must oppose a provision that would substitute an arbitrary statutory limitation on physicians' fees for the "reasonable" fee now allowed. He said cost factors were too complex for such a simple solution and that the arbitrary limitation would make the medical profession the only sector of the nation's economy under price or wage controls.

As for utilization or peer review, Dr. LaMotte said the AMA objects "most forcefully" to a provision of the pending legislation that would have non-medical groups act as review teams and pass judgement on medical services.

Following Dr. LaMotte's testimony, the committee modified somewhat the professional review amendment sponsored by Sen. Wallace F. Bennett of Utah, second-ranking Republican on the committee, after he earlier heard an AMA spokesman advocate the peer review principle.

The modified version relaxed a requirement for preadmission clearance to hospitals for elective surgery to leave the matter of such a requirement up to review agencies. But the committee version would permit the Secretary of Health, Education and Welfare to enter into agreements with organizations or agencies other than state medical societies for administering the review programs in areas of 300 or more physicians. The AMA contended strongly that the responsible agencies should be only state medical societies.

Meade Whitaker, tax legislative counsel for the Treasury Department, asked the committee to add a provision to the legislation that would require health insurance companies and carriers to report unassigned payments to physicians and other providers of health care. Unassigned payments go directly to patients to be given by them to their physicians. A similar proposal was knocked out of last year's tax reform legislation by a House-Senate conference committee.

The AMA—along with the carriers and HEW—have opposed mandatory reporting by carriers of unassigned payments on the grounds that it would be difficult and costly to furnish the data and that, in many in-

stances, the patient might not have passed along the payment to the physician. This last circumstance unfairly would put on the physician the burden of proving that he did not receive such income.

Whitaker said the Internal Revenue Service had found that more than half of 3,000 physicians who received \$25,000 or more in government medicare or medicaid payments in 1968 failed to report a substantial amount of their income to the tax agency.

The audits were ordered after the Senate committee raised the question of whether physicians receiving a large total of annual payments under the government medical programs were paying income taxes on all of it.

"Preliminary results indicate a number of instances of substantial unreported income, including some where the omission exceeds \$100,000," Whitaker said.

The committee had turned over to the IRS the names of 11,000 doctors who had received medicare or medicaid payments exceeding \$25,000 in 1968. Whitaker said 4,000 of the 11,000 doctors "justified detailed audit" and 3,000 of the audits were nearly complete, and that "about half of the 3,000 we audited will come up with substantial deficiencies" in reported income.

Sen. Russell B. Long (D., La.) said the investigation had disclosed a "vast area of tax cheating" and urged the IRS to initiate criminal prosecutions against doctors who had hidden their medicare or medicaid income.

Long added that, as far as he could see, the AMA "from the ethical point of view on taxes, has been completely forthright and honorable and sought to shield no one."

Long agreed with the AMA as to NOT including chiropractic services in the medicare program. He told a chiropractic spokesman testifying before the committee:

"Insofar as you can convince me that you are doing somebody some good, I would be willing to cooperate, but I am not inclined to cooperate when I am not convinced that you have. My feeling is the only time a chiropractor tried it on me it didn't do any good, so I guess I am prejudiced by that."

The Nixon Administration came out strongly against the cradle-to-grave comprehensive national health insurance legislation sponsored by Sen. Edward M. Kennedy (D., Mass.) and supported by organized labor leaders.

John G. Veneman, Undersecretary of Health, Education and Welfare, testified before the Senate Committee on Labor and Public Welfare, that the program that would be provided by the legislation "is not a proper or workable approach to the solution of the health problems of this nation" and would cost \$77 billion in the first year or full operation.

The committee held hearings on the legislation this year only to publicize it and to provide a forum for its supporters to expound their views. The sponsors resorted to a gimmick—a change in the financing provision—to get it before the labor and public welfare panel after it first was sent to the finance committee which ordinarily handles such legislation. The same maneuver was used in 1949 to get a hearing on President Truman's national health insurance proposal. Kennedy and six co-sponsors of his legislation are members of the labor and public welfare committee.

"There are those who insist that the present system is sound and should be left alone," Veneman said. "Others demand that we throw out the baby with the bath water and replace our pluralistic health enterprise with some monolithic scheme in which the Federal Government controls everything.

"I think both points of view are wrong. The deep troubles of the health care enterprise have been nurtured by many factors, not the least of which is past failure to plan and prepare for the soaring demand that observant people knew was coming. But I do not believe that past neglect means that we now have to start over and pursue some course of action that would be entirely alien to our basic traditions.

"The central issue, over and above the inconceivable commitment of general fund revenues for S. 4323, is whether such a drastic abandonment of existing mechanisms in our health care system is necessary to remedy the defects in the system and

whether, in fact, it may not create more problems than it will solve . . .

"Government is currently purchasing more than 36% of the total output of the health care system. This figure indicates that the use of its purchasing power is probably the government's primary source of leverage to initiate changes in the organization and delivery of health care. As government becomes more involved in financing it also has a greater responsibility to remedy the defects in the system.

"The question now is whether we should divert revenues needed for income maintenance, nutrition, the environment, housing and other health-related efforts, and concentrate them all on creating the federal system of health financing proposed by S. 4323. To do so would assume the failure of the measures currently proposed to correct defects in the present mixed public-private health system.

"In short, we (the Administration) have made substantive recommendations for improving the organization and delivery of services, increasing the efficiency of the health care industry, and for stimulating necessary reorganization and redistribution, through financing mechanisms. We are very much aware of the urgent need for solution of many problems in the financing and delivery of care, and have committed ourselves to an insurance program to provide protection to low income families with children.

"However, we have serious reservations about the desirability of embarking on a program like S. 4323, that will protect not only the unprotected but those with substantial coverage, and that will radically restructure the health financing and health service industry without having tested the instruments of change."

MEDICAL NEWS IN TENNESSEE

18th Annual Tennessee Valley Medical Assembly

The 18th Annual Tennessee Valley Medical Assembly was held October 19 and 20 at the Read House Hotel in Chattanooga.

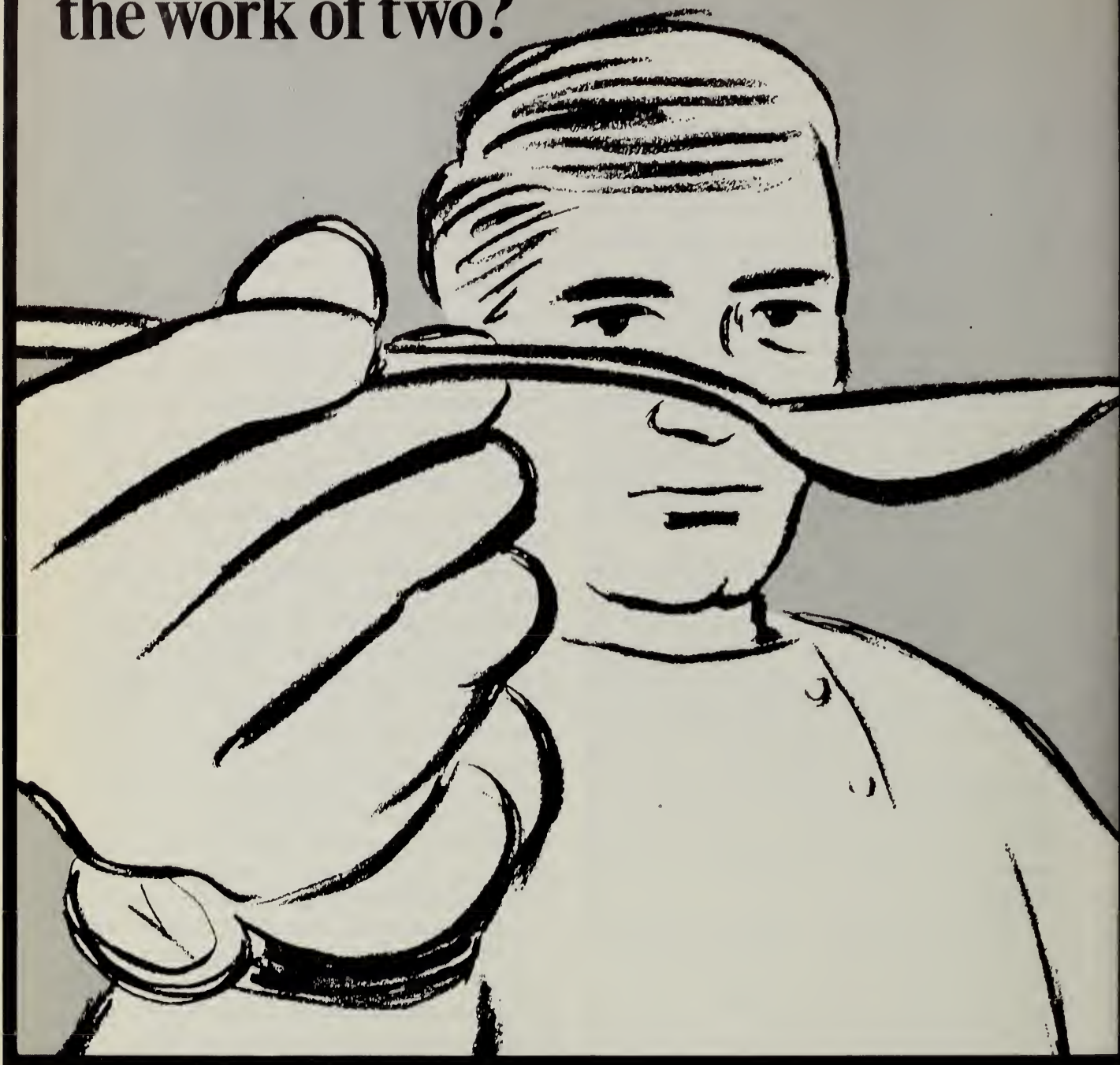
The always successful assembly featured a symposium on emergency care. Dr. C. Robert Clark moderated the symposium which was jointly sponsored by the Medical Assembly and the Chattanooga Bar Association. Mr. Neil Chayet, assistant professor of legal medicine at Boston University, was the featured speaker for the portion of the program that emphasized the legal aspects of emergency care. Also on the program was Dr. H. William Scott, Jr., professor and chairman of the Department of Surgery at Vanderbilt University, whose topic was "Emergency Care of Shock"; Dr. James R. Jude, director of the Division of Thoracic and Cardiovascular Surgery at the University of Miami, discussed "Cardiac Resuscitation"; and Dr. William G. Thurman, chairman of the Department of Pediatrics, University of Virginia School of Medicine, whose topic was "Emergency Care of Drug Reactions."

Other eminent speakers who participated in the general scientific program included Drs. James L. A. Roth, director of the Institute of Gastroenterology at the Presbyterian University in Philadelphia; Dr. Stewart A. Fish, professor and chairman of the Department of Obstetrics and Gynecology at the University of Tennessee College of Medicine in Memphis; Dr. Earl Ginn, chief of the Nephrology Division at Vanderbilt University Medical Center, Nashville; Dr. Frank G. Moody, director of the Gastrointestinal Division at the University of Alabama in Birmingham; Dr. Ronald C. Jones, associate professor of Surgery at the Southwestern Medical School in Dallas; Dr. Noble O. Fowler, professor of medicine at the University of Cincinnati; Dr. William G. Thurman, professor and chairman of the Department of Pediatrics at the University of Virginia School of Medicine in Charlottesville; and Kenneth M. Brinkhous, professor of pathology at the University of North Carolina.

Vanderbilt University School of Medicine

Dr. David Janowsky and Dr. Harry Shore Abram are two recent additions to the full-time faculty of the Vanderbilt University School of Medicine. Dr. Janowsky, assistant professor of Psychiatry and Phar-

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macology, comes to Vanderbilt from Harbor General Hospital of the University of California at Los Angeles School of Medicine where he developed a psychiatric crisis-emergency service. Dr. Janowsky received his M.D. degree in 1964 from the University of California at San Francisco. He interned in pediatrics at the University of California and took a residency in psychiatry at the UCLA Neuro-psychiatric Institute in Los Angeles and at Harbor General Hospital.

Dr. Abram comes to Vanderbilt from the University of Virginia School of Medicine where he taught psychiatry and served as president of the hospital clinical staff and co-director of the Renal Dialysis Unit at the University of Virginia Hospital.

One of the most knowledgeable people in the country in his field, Dr. Abram is concerned with frontiers in psychiatry—the psychological aspects of major surgery and physical illnesses, especially that of artificial kidney and kidney transplant patients. Dr. Abram will coordinate psychiatric liaison services at the Vanderbilt Hospital and Medical School.

Dr. Abram received his B.S. degree from Northwestern in 1952 and his M.D. in 1956 from the University of Virginia School of Medicine, where he also interned and took a residency in psychiatry. He was a Clinical and Research Fellow in psychiatry at Harvard Medical School and Massachusetts General Hospital. * * *

Nelson Andrews, President of the Metropolitan Nashville Chamber of Commerce, was elected Chairman of the Board of the Children's Regional Medical Center at the Board's first organizational meeting held recently in Nashville.

Mr. Andrews is President of McClure's Department Stores in Nashville and is also a member of the Vanderbilt Medical Center Hospital Board. He has served as President of the Nashville-Davidson County American Red Cross, first President and charter member of the Better Business Bureau, and is a Board member of the Nashville YMCA, Salvation Army, Junior Achievement of Nashville, and Blue Cross-Blue Shield of Tennessee. Mr. Andrews is a 1950 graduate of Vanderbilt University.

PERSONAL NEWS

Drs. Thomas F. Frist, James N. High, and Fred Ownby, all of Nashville, were participants in a "Heart Forum" recently held in Cookeville. The forum was sponsored by the Putnam County Heart Unit and was open to the general public of Putnam County.

Dr. Henry T. Kirby-Smith, Sewanee, recently announced his retirement from practice after 43 years. This marks the first time in 63 years that Sewanee will be without a physician named Kirby-Smith.

Dr. Richard O. Cannon, Dean of Allied Health Professions for the Vanderbilt University School of Medicine in Nashville was recently recognized by Chancellor Alexander Heard for full-time continuous service to the University for 25 years.

Dr. Lewis G. Britt, Memphis, was the guest speaker at the September meeting of the Memphis Rotary Club. Dr. Britt spoke on the subject of kidney transplants.

Dr. Jo Anderton, Winchester, spoke on the subject "The Effects of Drug Abuse on Youth" at a recent meeting of the Winchester Business and Professional Women's Club.

Dr. J. M. Higginbotham, Chattanooga, has been elected president of the Lahey Clinic Foundation Alumni Association. The announcement came at the second reunion meeting recently held in Boston.

Dr. Dillard M. Sholes, Jr., Elizabethton, has been elected to the Board of Trustees of the Blue Cross-Blue Shield of Tennessee. Dr. Sholes fills the position vacated by **Dr. Henry T. Kirby-Smith** of Sewanee who recently retired from practice.

Two Memphis physicians are authors of articles published in the October issue of the Southern Medical Journal. **Dr. J. T. Francisco**, authored an article entitled "Smothering in Infancy: Its Relationship to the 'Crib Death Syndrome'" and "Microinvasive Carcinoma of the Cervix—A Confusing Dilemma" was the title of the article published by **Dr. Robert Ruch**.

Dr. Dan Sanders, Nashville, has been named president-elect of the Tennessee Pediatric Association. **Dr. William B. Wadlington**, also of Nashville, took office as the new president at the association's recent annual meeting in Knoxville.

Dr. Jerry F. Qualls, Dickson, will move his practice of pediatrics and obstetrics to Paris, Tennessee in January. Dr. Qualls will be a member of the staff at Nobles Memorial Hospital.

Dr. Charles D. McDonald, Jr., Chattanooga, has entered the practice of internal medicine and cardiology at the Diagnostic Center in Chattanooga. Dr. McDonald moved to Chattanooga from New Orleans where he had served as

Deputy Chief of Medicine at the U.S. Public Health Service Hospital.

Dr. James N. Etteldorf, professor of pediatrics at the University of Tennessee College of Medicine in Memphis, has been awarded a Goodman Professorship by his fellow faculty members in recognition of his excellence as a teacher and general contribution to the field of pediatrics. Dr. Etteldorf has more than 30 years of teaching experience in the UT Medical Units, of which the last 22 years has been devoted to teaching pediatrics.

BOOK REVIEW

SPECTROSCOPIC APPROACHES TO BIMOLECULAR CONFORMATION. Edited by D. W. Urry, Chicago, Illinois. American Medical Association, 1970. Price \$15.00.

During the decade of the 1960's methods of X-ray crystallography were developed and exploited to provide a view of biochemical processes at the atomic level. X-ray studies of this kind are limited to solid phase, crystalline systems, and it is reasonable to ask whether a process studied in a crystal would occur in the same manner in solution or in the cell. To answer this question, a new experimental approach is required. A successful approach could also be applied to systems not readily crystallizable.

In *Spectroscopic Approaches to Biomolecular Conformation* the several authors present thoughtful discussions of a class of methods which seems to offer the greatest hope for providing detailed structural information about macromolecules in solution. The methods are termed spectroscopic, which is to say they record as a function of wavelength changes in an electromagnetic wave (e.g., visible light, radio waves) brought about by its passage through a molecule. Two of the methods, infrared spectroscopy and nuclear magnetic resonance, are sensitive to the local environment of individual atoms; of all available methods these can potentially provide information of the highest detail. Other methods are sensitive to the state of larger segments of the molecule. Chapters in the book describe individually all important spectroscopic techniques except electron spin resonance (a serious omission).

Each chapter begins with an introduction which delineates the nature, strengths and weaknesses of the technique discussed. Most authors follow the introduction with a description of their own research which is frequently in a form more meaningful to the non-specialist than is usual for original journal articles. A few authors include a presentation of newer, incomplete findings; in some cases these appear to be sound, while in others they are unconvincing and confusing.

The book should be useful to diverse groups of readers. The layman will find the basic introductions clear and informative. The researcher in biochemistry or molecular biology will appreciate the overview of biochemical spectroscopy and might even think of an application or two in his own area of research.

ANNOUNCEMENTS

Calendar of Meetings

1970-71

State

- Nov. 19-20 University of Tennessee College of Medicine, Annual Symposium of Emotional Problems, The University of Tennessee Memorial Research Center and Hospital, Knoxville

National

- Nov. 29-Dec. 2 American Medical Association, (Clinical Convention), Boston
- Dec. 5-10 American Academy of Dermatology, Palmer House, Chicago
- Dec. 7-9 Southern Surgical Association, Boca Raton Hotel, Boca Raton, Fla.
- Dec. 9-12 American Academy of Cerebral Palsy, Shamrock-Hilton, Houston
- Jan. 2-21 American College of Surgeons, Scientific Winter Cruise, combined with sectional meetings, Panama City, Caracas, and San Juan
- Jan. 29-31 Southern Radiological Conference, Grand Hotel, Point Clear, Ala.
- Feb. 3-7 American College of Cardiology, Sheraton Park Hotel, Washington, D.C.
- Feb. 8-10 American Academy of Occupational Medicine, Park Sheraton Hotel, New York
- Feb. 14-15 AMA Congress of Medical Education, 67th Annual, Palmer House, Chicago
- Feb. 20-24 American Academy of Allergy, Palmer House, Chicago
- Mar. 6-11 American Academy of Orthopedic Surgeons, Civic Center, San Francisco
- Mar. 8-11 New Orleans Graduate Medical Assembly, Roosevelt Hotel, New Orleans
- Mar. 15-17 American College of Surgeons, joint meeting for Doctors and Nurses, Roosevelt Hotel, New Orleans

- Mar. 25-27 National Conference on Rural Health, 24th, Atlanta Marriott Motor Hotel, Atlanta
- Mar. 26-28 American Society of Internal Medicine, Brown Palace, Denver
- Mar. 28-Apr. 2 American College of Physicians, Hilton Hotel, Denver
- Mar. 29-Apr. 3 American College of Radiology, Chase Park Plaza, St. Louis

Symposium On Emotional Problems To Be Held In Knoxville

The Continuing Education Department of the University of Tennessee College of Medicine will hold its annual symposium on emotional problems at the University of Tennessee Memorial Research Center and Hospital in Knoxville on November 19 and 20, 1970.

The afternoon of November 19th will be devoted to reviewing and discussing selected films on interviewing techniques with patients having physical and emotional problems. November 20th will feature several experts on drug and alcohol abuse, offering diagnostic and treatment aids for in-patients and out-patients. The emotional and environmental factors will be discussed as well as the physician's role in coping with drug and alcohol users. There will be a few short interviews with patients. Ample discussion time will be allowed.

Featured speakers for the symposium will include John D. Griffith, M.D., Department of Psychiatry at Vanderbilt; Donald R. Jasinski, M.D., chief, Pharmacology Section, Addiction Research Center in Lexington, Kentucky; Robert Lash, M.D., Poison Control Center, University of Tennessee Hospital in Knoxville; Cecil Mynatt,

M.D., superintendent, Eastern State Psychiatric Hospital in Knoxville; and Mr. Phillip Storey, executive director of the Knoxville Area Council on Alcohol and Drugs in Knoxville.

This course will be approved for AAGP credit.

ACP Announces Post-Graduate Courses In January

The American College of Physicians will sponsor two post-graduate courses during the month of January. On January 13-15, a course entitled "Coronary Atherosclerotic Heart Disease: Prevention, Treatment and Rehabilitation" will be held at Grady Memorial Hospital in Atlanta, Georgia. Co-sponsored with Emory University School of Medicine and the American Heart Association, this will be a three day program where prevention, treatment and rehabilitation of the coronary atherosclerotic heart problems will be discussed by experts in great detail.

On January 18-22, the American College of Physicians will present a course entitled "Recent Advances in Internal Medicine" at the Medical College of Georgia in Augusta. This course will explore important recently developed concepts in internal medicine. It will be organized in terms of major subspecialty areas, and time will be devoted to cardiology, gastroenterology, rheumatology, nephrology, infectious disease, pulmonary disease, hematology, metabolism, endocrinology, and dermatology. While the focus will be primarily clinical, emphasis will also be placed on underlying pathophysiologic principles and their relevance in the interpretation of diagnostic tests and selection of therapy. Actual cases illustrating application of these approaches will be utilized as much as possible, and participation of registrants with faculty in panel discussion will be encouraged.

* * *



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THE VIEWING BOX

WHERE WILL IT END?

PAUL B. JARRETT, M.D.

In Michigan, an appellate tribunal reversed a lower court which prohibited the plaintiff from using the defendant doctor as an expert witness *against* himself. The court said that, "a civil defendant has no protection against subjecting himself to liability. If his testimony will provide facts which will aid the court in arriving at a just decision, he has the duty to testify. Any loss to the supporting aspect of the adversary proceedings would be outweighed by the benefit to the judicial system." The courts therefore make quite a distinction between a murderer or rapist and a physician on trial for malpractice. The criminal is prohibited from testifying against himself.

The time-worn and flimsy excuse for liberalizing rules of evidence and new methods for proving malpractice is the "conspiracy of silence." This seems to mean that if a physician reviews the evidence and doesn't find a departure from the standard of care and cannot therefore testify that malpractice existed, he is a "conspirator" against the patient who is praying for an award. It simply is not true that every lawsuit against a doctor resulted from malpractice. If a physician has done nothing wrong, why should the plaintiff's attorneys become so irate because other physicians refuse to testify that he has?

There has been no dearth of suits against doctors in recent years, and every case has produced physicians who testified in behalf of the plaintiff. Where is the conspiracy of silence?

The "locality rule" has virtually been eliminated by the courts. In the past, the plaintiff had to establish that the defendant physician departed from the standard of practice in the community in which the doctor practiced. The theory now imposed is that because of modern transportation, communication, text books, T.V. medical

education, postgraduate courses, medical literature and meetings, even the "similar community" ruling is a thing of the past. A small community without a resident radiologist, a pathologist who visits twice a week, no intensive care unit, no anesthesiologist, (perhaps a colleague who does the best he can in anesthesia in emergencies), no coronary care unit, no respiratory care unit, no interns or residents, no facilities for blood gases, no cardiologist, internist, pediatrician, allergist and so on, certainly does not give the small town doctor the same resources or ability to handle difficult and serious cases. It isn't the "wives" who are driving the doctors out of the small towns. It is the courts who hold the county practitioner now to the same standard of excellence as the physicians in the large centers with unlimited consultative and other facilities.

This and the doctrine of *res ipsa loquitur*, uninformed consent, recovery for mental suffering, the statute of limitations running from the time of discovery and some more permissive rulings, are in the opinion of many, as ridiculous as the recent ruling that unions have a vested interest in limiting production and it is therefore proper to fine union members for exceeding their quota.

Many professional liability carriers have withdrawn from the malpractice field. Some insurance companies will not write policies covering physicians who do any operative procedures. As a recent, medical magazine article pointed out, a doctor makes thousands of life and death decisions in the course of his professional lifetime, yet if he makes one wrong decision, he may lose all he has worked a lifetime to acquire plus his professional reputation, and be unable to obtain liability insurance thereafter.

The physician shortage becomes more and more acute. Even so, there is talk of re-

licensing examinations at three year intervals and the training of sub-doctors. Who will accept the legal responsibility for these physician-aides? Certainly the number of MDs will be reduced by relicensing, and early retirement because of the inability to obtain malpractice insurance or excessive premiums. Many excellent surgical assistants are not helping on cases they do not originate because this puts them in the category four classification of a surgical specialist with current premiums of \$1280 per year, and no end to the premium rise in sight.

I have heard, but have not confirmed the statement that plastic surgeons in Florida cannot obtain malpractice insurance at any price. Some physicians who have had claims against them are rated up to above \$4,000 a year in premiums, and you are familiar with the mass cancellations of malpractice policies in Utah and Alaska. Midwest Mutual cancelled all of their policyholders as of February 23rd. Aetna is no longer writing surgical specialists, and there is no doubt whatsoever about the courts prac-

ticing medicine. The high cost of medical care is greatly contributed to by the need for the physician to protect himself. It is questionable whether this makes for a higher standard of practice.

In Canada and Britain it is both unethical and illegal for a lawyer to accept a case on a contingency basis, and they have very few "nuisance" suits. Forty percent of a recent award for \$1,500,000 is a pretty hefty fee for a few weeks work. What do you get for saving a life? What became of making the plaintiff pay court costs if he loses a suit? Recently a malpractice action in Flagstaff took five weeks in trial. What did this cost the taxpayers? How much important business was delayed as a result of the interminable presentation of the plaintiff's lawyer in a case that in many opinions should never have been permitted to come to court?

Will the day come when a doctor will be forced to say, "I'd like to help you, but I just can't take the risk!"

Where will it all end?

(*South Dakota Medical Journal*—October 1969)

Taxation And The Professional Corporation

J. JERRY WOOD, J.D.

Many professional journal articles have suggested corporate forms of practice for professionals. Many articles have warned of the possible tax consequences and disadvantages in spite of the district court victories for several taxpayers.

Recently, in *Jerome J. Roubik* (53, T. C., No. 36) the tax court refused to recognize for federal tax purposes a professional corporation organized under Wisconsin law, because it did not operate like a corporation. The court said that it would not recognize for tax purposes a "paper" corporation.

In the subject case, four unrelated and geographically separate radiologists organized a professional corporation in accordance with Wisconsin law. However, these physicians continued to operate exactly as they had in their separate private practices and hospital, jobs, under their own individual names. Fees and expenses were put

through the corporation checking accounts. The corporation elected pseudo-corporation tax treatment and set up an employee pension plan. Each doctor-shareholder was credited with his professional earnings and charged with his expenses. The net for each physician, less his salary, was shown as his taxable income from the pseudo-corporation (Subchapter S of the IRS Regulations).

The court found that the radiologists in this case retained control of the performance of their individual patient services and were not bona fide corporation employees. The corporation, therefore, did not earn the income generated by their services. "In the case of a corporation which provides personal services for a fee, income is 'earned' by the corporation or by the person who actually performs the services, whoever has the ultimate direction and control over the earning of the compensation."

The court focused on the purely "paper" nature of this incorporation. The court said "we know of no case which has decided that two or more professionals engaged separately in their own practices can become, in respect of the income from those practices, 'employees' of a corporation through the purely formal device of incorporating a set of bookkeeping sheets." This case probably indicates a continuing close scrutiny by the Treasury Department of professional corporations. No doubt, the Treasury will attack those corporations which do not act like corporations and do not "control" their earnings.

Some important factors which will support the corporation form of operation are: common premises; ownership of equipment and supplies; common employees (other than the professionals); identification by

corporation name, such as the ABC Clinic; patient and client notification of the corporation form; compensation agreements with the corporation; corporation determination of employee assignments; etc.

Even prior to the official approval of professional corporations, the Treasury Department had begun to attack corporations primarily engaged in furnishing the personal services of their stockholder-employees. Most of these were in the entertainment field. However, this same kind of attack can be extended to professional corporations. The Treasury Department will continue to attack any professional corporation it considers to be "paper" or "a sham" to avoid taxes.

(Journal of the Medical Association of Alabama, February 1970)

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VOLUME TWO, NUMBER THREE

NASHVILLE, TENNESSEE

FALL 1970

CONTINUED EDUCATION ACTIVITIES AT MEHARRY

OPERATION F.I.N.D.

Not even the rain which had been falling for days could dampen the spirits of Church Hill residents on Sunday, September 27. They had looked forward for several weeks to this day. Today OPERATION F.I.N.D. would be conducted between the hours of 2-5 p.m., which meant that each and every resident could receive a free screening for diabetes and hypertension. The radio spot announcements, newspaper articles, store window posters, special school announcements, and even the church bulletins had all built up the tempo of OPERATION F.I.N.D.

Today was the day!

The purpose of OPERATION F.I.N.D. (Focus Interest on New Disease) was to determine the feasibility, efficiency, and economy of detecting diabetes and hypertension in a population using an abbreviated medical history and a few simple screening tests applied totally by volunteer, non-professional persons working under the supervision of physicians.

OPERATION F.I.N.D. was the outgrowth of an idea by Drs. Clark and Robertson of Church Hill, along with the cooperation of Dr. Chambers, the area coordinator for the Tennessee Mid-South Regional Medical Program. F.I.N.D. was designed to screen the public for hypertension and diabetes. This type of mass screening of the public was not new; however, the technique of using non-professionals, specially trained high school students, to do the screening was unique and innovative. As far as Drs. Clark and Robertson knew, this was possibly the first time for high school students to be trained to conduct such a screen.

Approximately 30 students had spent several hours in training for the event. Two groups, one for men, another for women, were to handle the urine testing. While two other teams would take blood pressure, others were to handle the registration.

Everything was in readiness, the students, the registration forms, the urine cup, the blood pressure kits, stethoscope, and soon, the Church Hill public.

Urine testing has been simplified by the use of the dipstik. In a matter of a minute

continued on page 3

The Continuing Education Program of Meharry Medical College is designed to enable physicians to improve the quality and distribution of health care especially for the poor in urban and rural areas. It therefore advocates multispecialty group practice, the delivery of comprehensive health care including use of paramedical personnel and improved systems of delivery of medical care. Meharry's involvement in outreach programs puts it in a unique position to teach and demonstrate comprehensive health care systems. The Neighborhood Health Center provides a model of ambulatory health care which is applicable to any section and any economic status. The Comprehensive Outpatient Department of Meharry Medical College also demonstrates a system by which hospitals can deliver convenient ambulatory health care to a population. The Mental Health Facility, the Children and Youth facility, and the Multiphasic Screening Laboratory are demonstrations of models of providing health care.

The Continuing Education Program of Meharry seeks to demonstrate to physicians of the region these models of improved methods of delivery of health care and encourages them to inculcate these models into their own health delivery system. This is the major thrust of the Continuing Education Program although we continue to provide continuing education courses which will improve the quality of medical care.

Components of the Continuing Education Program

1—*Meharry Field Faculty*—The members of the Field Faculty are: Dr. L. M. Donaldson, Fayetteville, Tenn., Dr. E. W. Reed, Memphis, Tenn., Dr. E. F. McIntosh, Chattanooga, Tenn., Dr. L. L. Williams, Knoxville, Tenn., Dr. Robert Smith, Jackson, Miss., Dr. Carl Gordon, Athens, Ga., and Dr. John Norris, Tuskegee, Ala. These men have appointments to the clinical staff of the medical school and their duties are (a) to visit Meharry Medical College quarterly to become familiar with developments in continuing education and to participate in the newer methods of medical practice, (b) to maintain close liaison with officials and staff of their local hospitals and assist in implementing their continuing education

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FROM THE DIRECTOR'S DESK

DR. PAUL E. TESCHAN

Perhaps the most important meeting of the Regional Advisory Group since the beginning of the Regional Medical Program in Tennessee Mid-South is scheduled for November 19-21 in Gatlinburg, Tennessee. What makes it so important is that the Region is now completing its first three years of federal funding for operations and faces the next three years of further development. In order to meet the deadline for our new application in Washington according to guidelines received only on May 8, 1970, the large (1500 pages!) application document was written without adequate consultation with most members of the R.A.G., although it attempted to express the policies previously enunciated in various motions and minutes of the Regional Advisory Group and to incorporate recommendations by the Study Groups in the past three years. It was evident in the final review sessions of the Regional Advisory Group and its Executive Committee that a number of members were not completely informed either on the full content of the application itself or in the means by which our Program seeks to be helpful in the health care crisis perceived in this Region as well as nationally. Accordingly, the Gatlinburg meeting has been scheduled to afford all members of the Regional Advisory Group a full opportunity to be heard and to express their ideas concerning appropriate future development of the Regional Medical Program in this Region.

The problem confronting us in the Gatlinburg meeting concerns evaluation of past activities and guidance for the future growth of the Program: namely, how can busy members of the R.A.G. who are fully occupied with other duties become sufficiently informed concerning the Regional Medical Program in order to give it effective policy guidance and to make meaningful judgments in evaluation?

The committee structure of the R.A.G. was designed to provide opportunities during and between meetings for appropriate input of information for informed decision-making. In Gatlinburg, a documentary film and an address by Congressman Fulton will review progress to date and up-date members on the current status and trends in the Program nationally and in this Region. One of the most important trends to be fully understood is toward a large and increasing measure of autonomy in the Region for approval and funding of project grants. While a major decrease in the approval time should thus be realized as a benefit to the Region, it also makes it necessary that limited project funds (in the absence of fully adequate appropriations and release of funds by the Congress and the Administration) be responsibly executed

according to agreed-upon Regional priorities.

Accordingly in the next triennium and thereafter, the role of the Regional Advisory Group is anything but perfunctory and routine in view of this increased responsibility for allocating funds and evaluating Program progress. A particular opportunity is presented to the R.A.G. to help guide the staff in developing this Program away from its earlier and limited image as a project funding mechanism toward a much more dynamic Program in which health-oriented interests, health professionals, agencies and organizations, can use the RMP as it was originally intended: namely, as an instrument by which federal funds can help to implement locally-determined plans to meet locally-perceived needs for quality health care.

--- † † † ---

New Academy Program for Physicians

Dr. Robert Gilbertson, Chairman, Post-Graduate Committee of the Knoxville Academy of Medicine, announced today that the Regional Medical Program for Mid-East area of Tennessee Mid-South is financing a joint effort with the Academy and the University of Tennessee to coordinate a continuing education program for Knoxville area physicians.

Dr. Bill C. Wallace, associate professor of health education at UT, and Phillip G. Huntsinger, a graduate assistant in the Department of Health and Safety, are representing the University in this endeavor. The purpose of the program is to improve the efficiency of the physician's continuing education program at the local community level.

The physicians attending the October meeting had their choice of participating in one of four different meetings. Dr. Edward D. Pelligrino, Dean and Vice President of the School of Medicine, State University of New York, Stonybrook Long Island, was the major speaker. Dr. Pelligrino's presentation was concerned with "The Changing Undergraduate Medical Curriculum". Departmental speakers were Dr. A. W. Diddle, Gynecology, Dr. E. Gifford Ammerman, Pathology, and Dr. D. Bogartz and Dr. Charles M. Wender, Anesthesia.

The continuing education programs are presented the second Tuesday of each month at 8:00 P.M. in the Knoxville Academy of Medicine Building.

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or two, while the patient waited, the student using this method was able to determine pH, Sugar, and Albumin from the sample.

After urine testing, the patients moved to another team of students, ten feet away, for a check for hypertension, or high-blood pressure. This information, along with the urine results, were recorded on a simplified three-part form. The patient received one copy to take to his private physician.

Total time for the entire screening process was no more than 10-15 minutes, including registration.

Entire families came—Mom, Dad, and all the children. There was no age limit, everyone who came was given the free test.

Three physicians and three nurses were available throughout the afternoon to supervise the activities and to assist the students with problems.

What was the public's reaction? Great, for they continued to come all afternoon despite the weather. A typical comment from a middle-aged Church Hill resident: "This is wonderful, why can't this be done all over the country. It was quick, simple, painless, and free, and now I don't have to worry about those two diseases." Another comment concerned the high school students: "Weren't they just wonderful, so kind and gentle, yet so professional."

Drs. Clark, Robertson and Chambers were all exceptionally pleased with the entire operation, although they had hoped to screen more than the 300 that appeared.

They are planning a follow up for the project.

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efforts, (c) to maintain close contact with local physicians in order to discover their real needs and thereby influence the design of continuing education efforts on their behalf, (d) to act as a source of information for their colleagues to determine where and how needed services such as library, medical specialty or allied health agency assistance can be obtained, (e) to encourage physician attendance at regional, state, and hospital continuing education activities and to encourage participation by black physicians in hospital activities in this region, (f) to recruit promising candidates for various paramedical training programs of the region, and (g) to act as preceptors for medical students in a program cooperating with Meharry's Department of Community Health. The most encouraging effects of this program has been the effort on the part of the Field Faculty to develop prepaid group practices in Knoxville and Memphis, Tenn.

2—Medical Practice Study—A study of the medical practices of black physicians in Tennessee was carried out by the Continuing Education Program using medical students as interviewers. All of the black physicians in Tennessee have been interviewed and the data are now being analyzed in preparation for presentation.

3—Three-day Seminars—The purpose of these seminars is to provide periodic refresher courses in modern methods of diagnosis and treatment and improved methods of health care delivery.

4—Two-week Postgraduate Training Periods—Individually planned postgraduate training gives practicing physicians opportunity to receive continuing education in depth. So far three physicians have availed themselves of the opportunity to spend two weeks learning electrocardiogram reading and the management of acute myocardial infarction.

5—Audiovisual Programs—From a basic black and white camera and videotape recorder equipment provided by the Regional Medical Program, the Continuing Education Program of Meharry and has been able to acquire color equipment from other sources. A studio is now being equipped which will enable us to produce quality color videotapes for distribution to the region and to offer videotape services to continuing education programs of the region.

6—Improving the Teaching Skills of Instructors—Since continuing education programs frequently fail because the instructors themselves do not meet the needs of physicians in practice, we have developed a program intended to increase the effectiveness of instructors by various means. A program in learning theory was presented to the Meharry faculty by the Pea-

continued over

body College last year, and during this year a faculty retreat was led by representatives from the University of Illinois, School of Medical Education, and from the Harvard School of Educational Development.

7—*Cooperation with Other Programs*—The Meharry program actively cooperates with other programs in continuing education and encourages participation by the practicing physicians who relate to Meharry Medical College. It also assists in implementing the programs of the other medical schools in this area as various projects develop. In cooperation with Vanderbilt Medical School a calendar of medical continuing education activities is published monthly.

8—*Program in Continuing Dental Education*—The Meharry Continuing Education Program is seeking cooperation of the Regional Medical Program, the University of Tennessee, and dentists of the region in providing a useful continuing dental education program to the dentists of this region.

9—*Learning Resources Center and Audio-visual Program*—Construction of the Meharry Learning Resources Center will begin December, 1970. This is a six-story building which contains 123,000 sq. ft. The second floor will provide four lecture halls, two of which will seat 320 each and the other two, 120. On the mezzanine floor, there will be a gallery for exhibits and two convertible classrooms. Floors three, four and five will be the main library floors and will seat 250 users each. Study carrels and desks, closed circuit television and study tables will be provided. The sixth floor will be the main continuing education floor and will contain facilities for television and self-instructional equipment, in addition to illustrations and photography. There will be two seminar rooms and two lecture halls

seating fifty people each. Two video studios and control rooms and a master control room and two audio studios will also be provided. This building is scheduled for completion by January 1, 1972. It will be a major tool of the continuing education program and provide a facility where physicians and dentists can return periodically throughout their lives for continuing education.

(The second in a series of articles on the continuing education activities funded by the Tenn. Mid-South Regional Medical Program.)

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Instructions to Contributors

Manuscripts submitted for consideration for publication in the JOURNAL OF THE TENNESSEE MEDICAL ASSOCIATION should be addressed to the Editor, Dr. R. H. Kampmeier, Vanderbilt University Hospital, Nashville, Tennessee 37203.

Manuscripts must be typewritten on one side of letter-weight paper. Either double or triple spacing and wide margins must be provided to facilitate editing which will be legible for the printer.

Bibliographic references should not exceed twenty in number documenting key publications. They should appear at the end of the paper. The bibliographic references must conform to the style used in the American Medical Association publications, as,—Alais, F. G.: What Is Known About it, J. Tennessee M. A., 35:132, 1950.

Illustrations should be mounted on white cardboard, numbered and identified with the author's name. The editor will determine the number, if any, of illustrations to be used with the Journal assuming the cost of engravings and cuts up to \$25. Engraving cost for illustrations in excess of \$25 will be billed to the author.

If reprints are wanted, the desired number should be indicated in the letter accompanying the manuscript. No reprints are provided free and a reprint cost schedule will be forwarded upon request.

The author makes a plea for more ambulatory treatment of those having mental illness, as less costly and at times more effective than institutionalization.

Providing Health Care Through Mental Hygiene Clinics

ROY M. BARBER, M.D., Memphis, Tenn.*

The subject of the increasing costs of hospitalization is frequently encountered in current publications. Hospital beds have become so difficult to obtain that hospitals have appointed utilization committees to encourage the discharge of patients as soon as it is medically feasible. Some physicians believe there should be greater emphasis on an increased use of outpatient facilities. Certain examinations and evaluations prior to hospitalization may often reveal that hospitalization is not necessary. The needs of many patients may be met in an outpatient setting. Outpatient care is much less expensive and does not deprive the patient of the supportive influence of the home. The patient's routine of living is not disrupted by his being relocated.

The American Handbook of Psychiatry¹ quotes Dr. Armand Sunier in a report entitled Mental Illness and Psychiatric Care in Israel. The Israeli Ministry of Health contemplated building 1000 additional beds for the mentally ill. As a result of Dr. Sunier's study, he made several recommendations including the enlargement and strengthening of the mental hygiene clinics and improved aftercare for discharged patients. Thus, only 200 inpatient beds were needed, a saving of building and operating 800 hospital beds. Dr. Louis Linn in writing on the subject of Hospital Psychiatry for the Handbook states the most important phase of treatment of any psychiatric patient is that which takes place outside the hospital. Philip R. A. May² states the

hospital treatment of the schizophrenic patient should concentrate on psychiatric first aid and restitution, and that stabilization of the personality is the ultimate goal of the outpatient phase. It is in this stabilization phase that psychotherapy is likely to be of most help.

Raymond Waggoner, Sr.³ in his presidential address in May, 1970 told the American Psychiatric Association that there is a need for more efficiency in delivering mental health services. According to Drs. Leo Bartemeier and Francis Braceland, this is to be attained without sacrificing personal contact between the doctor and the patient. At all costs psychiatrists should avoid any trend toward dehumanization in relationships with their patients. The study presented here describes a mental hygiene clinic where one psychiatrist provides therapy for 1007 mentally ill veterans. Since the American Medical Association states there is one physician for every 630 people in the United States, this clinic should qualify as an efficient facility.

The Mental Hygiene Clinic of the Veterans Administration Hospital in Memphis, was opened in January 1966. Within one month the staff of the clinic consisting of one psychiatrist, one psychologist, one social worker, and one secretary were seeing 328 veterans. In one year 500 veterans were being seen in the clinic.⁴ As will be seen in table 1, the patient load doubled from 1967 until 1970. During this period the social worker and, more recently, the psychologist were lost from the clinic staff. Some plan was required to deal with the

*From the Mental Hygiene Clinic, Veterans Administration Hospital, Memphis, Tenn. 38104

Table 1
ENROLLMENT

<i>Date</i>	<i>SC Active</i>	<i>SC Inactive</i>	<i>Trial Visit</i>	<i>PHC</i>	<i>Total</i>
Jan. 1966	328	0	0	0	328
Jan. 1967	397	33	70	0	500
Jan. 1970	692	187	39	89	1007

Table 2
ATTENDANCE PER MONTH

<i>Date</i>	<i>SC Active</i>	<i>Trial Visit</i>	<i>PHC</i>	<i>Total</i>
Sept. 1969	504	58	79	631
Oct. 1969	495	42	66	603
Nov. 1969	353	21	41	415
Dec. 1969	287	49	44	380

Table 3
AGES AND EMPLOYMENT OF SC AND TV PATIENTS OF 1969

<i>Ages</i>	<i>No. of Patients</i>	<i>No. Working</i>	<i>Part Time</i>	<i>Unemployed</i>	<i>Unknown</i>
18-24	39	13	6	14	6
25-29	39	18	4	16	1
30-34	36	13	5	14	4
35-39	77	22	9	41	5
40-44	106	46	8	49	3
45-49	260	112	21	113	14
50-54	187	62	22	95	8
55-59	96	32	13	50	1
60-64	49	13	2	27	7
65-69	8	1	0	7	0
70-74	8	0	0	8	0
75-79	7	0	0	7	0
80 up	1	0	0	1	0
Unknown	5	0	0	1	4
	918	332	90	443	53
		36%	10%	48%	6%

increasing patient load. The new Chief of Psychiatry evolved a system of mailing medications to patients whose illness is in fair remission. Thus, some patients need to come to the clinic only once every two or three months. As indicated in table 2, this maneuver reduced appointments from 631 to 380 per month. Each patient then has time to be evaluated and to work on problems when he sees the psychiatrist.

The chief goal of the Mental Hygiene Clinic is to restore the mentally disordered person to his optimal level of physical health, mental functioning, social adjustment, and vocational performance in his community. The goal needs to be individualized. Some patients may be expected to work full time and remain functional at

home indefinitely. In elderly patients the realistic goal may be self care, maintenance of ambulation in the home, and a stimulating hobby. From the initial contact with the patient, he is made aware of the goal of adjusting well enough to remain outside the hospital and functional in his community. The great majority of patients take pride in this accomplishment.

The specific goal of maintaining physical health is met by physical examinations, annual chest x-rays, blood counts, urinalysis, and referral to specialists as indicated. In the past year, 5 new cases of diabetes mellitus and one of bronchogenic carcinoma have been detected by these methods.

Mental stabilization and remission of

symptoms have been attained largely with psychotropic drugs, crisis intervention, and brief psychotherapy. There has been limited use of bibliotherapy and relaxation therapy.

Social adjustment is promoted by periodic conferences with wives and close relatives. Occasional family counseling and marriage counseling is arranged. Until recently the psychologist has had couple group therapy for selected cases.

All patients are encouraged to do some work. Regular gainful employment strengthens the ego, even if the salary is small. Young unemployed veterans are encouraged to take vocational training or complete their schooling. Those who are unable to work in a competitive society are made acquainted with volunteer work which they can perform in the hospital and community. Recently an incentive therapy program has been started in Manual Arts Therapy for those who have psychologic and financial needs. Pay is on a piece work

basis. Local industry has cooperated in this project.

Table 3 indicates that approximately one-half of the Mental Hygiene Clinic patients are employed. This disproves the claim commonly heard that no one will hire a person who has been mentally ill. Veterans Administration Deputy Administrator, Fred B. Rhodes states, July 24, 1970, in a letter on equal employment opportunity, that mental disorders from which one has recovered will not be a factor affecting assignment of employees.

Table 4 shows that 52% of the neurotics are employed while 38% of the schizophrenics have jobs. Even 7 patients having brain injury work full time.

In table 5 we see that 256 patients who live with their wife are employed. This is a percentage of 55%. A surprising 50% of those who live alone have jobs. Only 25% of the patients who live with their Mother work.

Table 6 reveals that 60% of the unem-

Table 4
PSYCHIATRIC DIAGNOSES AND PRESENT EMPLOYMENT 1969

<i>Diagnosis</i>	<i>Working</i>	<i>Part Time</i>	<i>Unemployed</i>	<i>Unknown</i>	<i>Total</i>
Anxiety reaction	175	38	148	21	382
Depressive reaction	12	3	13	1	29
Conversion reaction	12	3	9	1	25
Hysteria	6	2	10	3	21
Neurasthenia	3	0	7	0	10
Manic depressive	12	3	12	3	30
Psychotic depressive	2	1	6	1	10
Schizophrenia-paranoid	40	16	72	5	133
Schizophrenia-undifferentiated	45	19	91	9	164
Schizophrenia-catatonic	6	0	12	0	18
Schizophrenia-hebephrenic	1	2	9	0	12
Schizophrenia-simple	0	1	6	0	7
Schizophrenia-schizo-affective	3	1	8	2	14
Psychosis & mental disease	0	0	5	0	5
OBS*-convulsive	3	0	6	1	10
OBS-trauma	7	0	20	1	28
OBS-circulatory	0	0	4	0	4
Psychophysiologic reaction	4	1	4	1	10
Adult situation reaction	1	0	1	0	2
Undiagnosed	0	0	0	4	4
Totals	332	90	443	53	918

*Organic brain syndrome

Table 5
RESIDENCE AND EMPLOYMENT

<i>Living with</i>	<i>Working</i>	<i>Part Time</i>	<i>Unemployed</i>	<i>Total</i>
Wife	221	35	210	466
Parents	12	7	24	43
Father	1	3	6	10
Mother	15	10	49	74
Brother	3	2	13	18
Sister	9	6	29	44
Son	4	0	5	9
Daughter	0	0	7	7
Other relatives	2	3	8	13
Friend	4	2	8	14
Alone	33	17	58	108
Residence unknown	28	5	26	59
Work status				53
Totals	332	90	443	918

Table 6
PROBABLE REASONS FOR UNEMPLOYMENT

<i>Conditions</i>	<i>Number of Patients</i>	<i>Conditions</i>	<i>Number of Patients</i>
Psychogenic mental illness	265	Tuberculosis & emphysema	3
Over 60 yr. age	47	Asthma & bronchitis	3
Cardiovascular disease	29	Parkinsonism	3
Alcoholism	23	Blind	2
Brain trauma	15	Lobotomy	2
Convulsive disorder	12	Severe diabetes	2
Retired before 60 yr.	10	Osteomyelitis	2
Cerebrovascular accident	9	Cancer	1
Duodenal Ulcer & G.I. surgery	9	Anemia	1
Renal and genital disease	5		443

Table 7
MENTAL HYGIENE CLINIC DROP OUTS 1966 AND 1969

<i>Drop Outs'</i> <i>Diagnosis</i>	<i>Working</i>		<i>Part Time</i>		<i>Unemployed</i>		<i>Totals</i>	
	1966	1969	1966	1969	1966	1969	1966	1969
Anxiety reaction	7	37	2	17	8	38	17	92
Depressive	2	3	0	2	1	4	3	9
Conversion	0	3	0	0	1	4	1	7
Manic depressive	0	3	0	0	1	3	1	6
Schizophrenia-paranoid	3	4	0	4	4	11	7	19
Schizophrenia-undifferentiated	1	12	0	5	3	23	4	40
Involutional	0	1	0	1	0	2	0	4
OBS	0	1	0	0	0	4	0	5
Psychophysiologic	0	4	0	0	0	1	0	5
	13	68	2	29	18	90	33	187

played Clinic patients are disabled by psychogenic illness. Twelve percent are over 60 years of age. Cardiovascular disease dis-

ables 7%; alcoholism disables 5%.

Patients who stopped coming to the Mental Hygiene Clinic included about the

Table 8
MENTAL HYGIENE CLINIC 1969 DROP OUTS BY AGE GROUPS

	<i>Ages</i>	18-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-up
Number		4	9	14	23	19	60	24	18	16
Percent of age group		10%	23%	39%	30%	18%	23%	13%	19%	22%

Table 9
CLINIC PATIENTS REMAINING OUT OF HOSPITAL

<i>Diagnosis</i>	<i>Less Than 1 Yr.</i>	<i>One Yr.</i>	<i>Two Yr.</i>	<i>Three Yr.</i>	<i>Four Yr.</i>	<i>Five Yr.</i>	<i>More Than 5 Yr.</i>
Anxiety neurosis	17	69	54	37	39	21	99
Depressive neurosis	3	10	1	1	4	1	7
Conversion neurosis	0	2	4	0	0	1	11
Hysterical neurosis	3	2	0	1	2	0	11
Neurasthenia	2	0	3	2	2	1	1
Psychophysiol R.	0	4	1	3	2	1	2
Manic depressive	3	1	4	7	6	1	6
Psychotic depressive	4	0	0	4	2	0	3
Schizophrenia-undifferentiated	17	29	19	20	12	9	46
Schizophrenia-paranoid	21	25	13	12	7	10	38
Schizophrenia-schizo. A	4	7	1	2	2	0	2
Schizophrenia-catatonic	1	3	3	2	0	2	6
Schizophrenia-hebephrenic	0	2	0	1	0	0	8
Schizophrenia-simple	1	0	1	2	1	0	2
OBS-convulsive	0	3	2	0	0	0	3
OBS-trauma	2	9	3	0	1	2	6
OBS-circulatory	0	2	1	0	1	0	1
TOTAL	78	168	110	94	81	49	252

same percentage working and percentage of unemployed as those who remained in the Clinic. By age groups, 30 to 39 more patients tended to drop out of the Clinic. (Table 7 and 8)

Table 9 shows about 8% of the Mental Hygiene Clinic patients were admitted to the hospital in the past year. Fifty-seven percent of the Clinic patients have remained out of the hospital for three years. Thirty-six percent of the patients have not been hospitalized for 5 years or more.

With the therapy available in the Mental Hygiene Clinic, mentally ill veterans have tolerated severe stress without breaking or

requiring hospitalization. One man tolerated the loss of his job, a severe mental illness of his Mother, and the interracial marriage of a child all within a few months. Several disabled veterans have tolerated the serious injury or death of a son in Vietnam. Watching a close relative slowly die from cancer is a stress the mentally ill tolerate with considerable difficulty. Bootleggers have changed occupations and now care for small children. Schizophrenics ignore voices as they become interested in constructive projects. One veteran has less frequent affairs with his invisible woman because he has found more in reality to

interest him. A withdrawn schizophrenic began to read a book given him as a present last Christmas. He returned to the Clinic delighted at the warm feelings he has and that he can concentrate and understand what he reads.

The mentally ill outpatients seems to need the reassurance that a psychiatrist is available if they need him. These patients travel 200 miles to see any doctor they trust, even for a 15 minute conference. The knowledge that such help is available gives the patients reassurance as they seek to adjust in their community.

It is hoped that in the near future a Day

Treatment Center and a Day Hospital will be activated to provide a wider range of therapeutic modalities for outpatients.

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The Present Status of Lung Transplantation*

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The compelling clinical need for lung transplantation is obvious. Advanced cases of chronic obstructive pulmonary emphysema alone rival cases of terminal renal failure in number, gravity of prognosis and as a cause of disability. In addition, chronic respiratory failure as an end stage of pneumoconiosis, bronchiectasis, tuberculosis, and other pulmonary diseases would be remedied by successful lung transplantation. Perhaps more important are a large group of patients with cancer of the lung who are denied resectional surgery because the remaining lung tissue will not be adequate to sustain life unless supplemented by a lung graft. Yet, in contrast to several thousand clinical kidney transplants only 24 clinical lung transplants have been performed throughout the world thus far. Despite this it should be pointed out that research and interest in lung transplantation have by no means been less vigorous than in the case of other organs. That many more lung transplants have not been performed is because of the fact that the problems in this field have proved to be particularly formidable.

An assessment of the present status of lung transplantation in man would be impossible without a consideration of the difficulties encountered in the laboratory during the last two decades and of the information derived therefrom. The volume of laboratory experience with lung transplantation which has received the attention of many investigators since the middle of this century has now reached major proportions. It is appropriate to take the first clinical lung transplant¹ performed in 1963 as dividing the total experience in this field into two periods. Prior to that year many reports appeared in the literature concerning the development of suitable

technics for transplantation of the dog lung and the study of the subsequent changes in the function of this lung. Also the events accompanying rejection in the dog lung were defined. It was demonstrated that immunosuppressive drugs (azathioprine [Imuran] or methotrexate) prolonged survival of the animals with lung homografts and substantially modified histologic changes of rejection, and that the degree of modification was subject to great individual variation. A complete bibliography² and a general review³ covering this early period are available in the literature. During the 7 years since the initial clinical case, cautious exploration of human lung transplantation has resulted in crystallization of our thoughts on its potential effectiveness and has given a new direction to laboratory investigations by defining unexpected problems.

The following discussion will start with a survey of the clinical experience, and then the current research efforts will be presented with particular attention to investigations in our own laboratory.

Lung Transplantation in Man

The first clinical lung transplant performed by Hardy's team¹ in 1963, with a background of laboratory experience involving hundreds of dogs, established the fact that clinical transplantation of the lung was technically feasible and that the transplant could participate significantly in the respiratory support of the recipient.

Case 1. The patient was a 58-year-old man whose left lung was removed because of a co-existing cancer and abscess. However, preoperative study of his right lung had shown that it was emphysematous and could not support life by itself. The donor lung was obtained from a man who died of myocardial infarction. As soon as death was pronounced some degree of artificial circulation was maintained in this cadaver donor by closed-chest cardiac massage, and pulmonary ventilation was continued through an endotracheal tube as the body was transported to the operating suite; a sterile thoracotomy with left pneumonectomy was rapidly performed.

During this time the recipient's diseased lung was being removed in an adjacent operating

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room. Immediately after its removal the graft was cooled by injection of cold glucose solution containing heparin and penicillin through its pulmonary artery. Then the graft was partially submerged in a cold solution until the time came to insert the organ into the left hemithorax of the recipient. The inferior pulmonary vein, the superior pulmonary vein, the pulmonary artery and the bronchus were anastomosed in that order. The ischemia time of the graft (the time from the actual death of the donor to the revascularization of the graft in the recipient) was 2 hours. Following removal of the clamps from the bronchus and the vessels to the transplanted lung, the arterial O_2 saturation of the recipient rose to 98% (from a preoperative level of 87%) and remained close to that level for the 18 days that this patient lived before dying of pre-existing renal disease.

At autopsy, there was neither gross nor microscopic rejection of the transplanted lung; azathioprine (Imuran) used in this case was presumably instrumental in suppressing the immunologic response.

Another clinical lung transplantation was performed by Hardy and me⁴ in January, 1969.

Case 2. This patient was a 66-year-old man with chronic obstructive pulmonary emphysema. He was bedridden and could not be cared for even in his local hospital. He had a Pco_2 of 60 mm Hg, Po_2 was usually around 40 mm Hg. He had been admitted to our hospital on 3 previous occasions during the same year with acute bronchitis and respiratory distress. He was almost moribund when last admitted. Arterial blood gases revealed a Po_2 of 24 mm Hg and a Pco_2 of 80 mm Hg. His CO_2 narcosis and hypoxia kept him somnolent. With assisted positive pressure ventilation and other supportive measures Po_2 rose to 71 mm Hg and Pco_2 declined to 68 mm Hg. Each time artificial ventilatory support was discontinued he became hypoxic and markedly hypotensive. Although he was far from being an optimal candidate for lung transplantation because of his advanced age and chronic debility, it was thought this procedure offered the only possible means of improving the total situation.

The left lung of a 19-year-old accident victim was transplanted following removal of the patient's left lung. Blood samples (through a small catheter which was left in the superior pulmonary vein of the graft during the operation) directly indicated excellent function of this lung until the 3rd postoperative day when the catheter became obstructed. Subsequently, although the graft appeared edematous on roentgenograms, its functional capacity continued to be shown by the improvement in the arterial blood gas values over the weeks. Perfusion of the graft was quite good as shown by lung scans. His general condition was satisfactory until the

24th post-transplant day. He was soon to leave the hospital when abruptly he developed *Pseudomonas* pneumonitis. Thereafter he had a rapidly deteriorating course. Pulmonary secretions and infections could not be controlled satisfactorily in this aged man under immunosuppression, and ventilation with the Bird respirator was ineffective. He expired on the 29th day. The immunosuppressive regimen had consisted of azathioprine (Imuran, 3 mg/kg/day), antilymphocytic globulin (ALG, 4 mg/kg/day) and prednisone (50 mg IV/6 hours).

At autopsy, the patient's emphysematous right lung contained frank abscesses with an almost pure growth of *Pseudomonas*. The transplant was pink, solid and virtually carneous on cut surface. The bronchial and the vascular anastomoses were intact and satisfactory. Microscopic sections of the graft revealed an essentially normal basic architecture without classical signs of rejection. A remarkable finding was that many of the alveoli and terminal bronchioles contained either an amorphous acidophilic material or a fibroblastic tissue. It would seem that prolonged ischemic damage to the graft at the time of transplantation was largely responsible for this massive intra-alveolar exudation because the ischemia time of this graft was unfortunately longer in this case. Although it was removed within 30 minutes of the death of the donor and was rapidly cooled, more than 3 hours elapsed before it could be re-vascularized in the recipient. The reason for this delay was the fact that the donor's heart had arrested unexpectedly during the night at a time when the recipient had not been fully prepared to receive the transplant.

Twenty-four clinical lung transplantations are known to have been performed throughout the world since 1963. The results of 23 of these performed by 20 different surgical teams have been analyzed by Wildevuur and Benfield.⁵ More recently, the 24th case was performed by Haglin. The fact that all but one of these patients died within a month after the procedure might appear discouraging to those who are not in this field. However, in the evaluation of the overall results several points should be borne in mind. Until 10 years ago attempts at clinical kidney transplantation had failed in all cases except as between identical twins. Although the present methods of immunosuppression and tissue typing leave much to be desired and more research on the genetics and identification of transplantation antigens is needed, kidney transplantation is no longer in an experimental stage, but has already become a useful

therapeutic procedure. It is true that even the nonimmunologic problems of lung transplantation are largely unsolved. Nevertheless, what has been learned with clinical renal transplantation within the last few years is a strong stimulus for intelligent attempts at other organ transplantation. There is no clear evidence that rejection of a lung homograft cannot be prevented with a degree of success approaching that realized with clinical kidney homografts. One reason for poor survival is the fact that almost all clinical lung transplantations have had to be performed under severe circumstances on otherwise hopeless patients. When the related physiologic and technical problems are better understood, selection of patients with less advanced respiratory failure for lung transplantation can be justified and this alone will improve survival rates considerably.

A clinical case of lung transplantation performed by Derom and associates⁶ in Belgium in November, 1968 is an indication that the lung transplanters are at the threshold of achieving significantly improved results.

Case 3. The patient was a 23-year-old man with severe silicosis. A right lung transplant afforded true palliation and greatly improved the quality of his life for 10 months. This relatively long survival was achieved almost completely by virtue of the function of the transplanted lung, because the remaining lung was chronically infected and completely collapsed. It is remarkable that despite immunosuppression this chronic infection (*Pseudomonae* and *Klebsiella*) could be satisfactorily controlled with antibiotics and excellent respiratory function in the graft was not jeopardized for this length of time. During the 8 months chronic rejection was believed to be present and the dosage of immunosuppressive agents (Imuran, prednisolone and antilymphocytic serum) was increased. Finally the patient died of pneumonia (*Klebsiella* and *Staphylococcus*).

The factors responsible for the relatively long survival of this patient appear to be his youth, absence of pre-existing systemic disease, and a good histocompatibility match with his donor (corresponding to a B match on the Terasaki scale). Also, restrictive lung disease seems to be a better indication for unilateral lung transplantation than does emphysema.

Clinical indications for lung transplanta-

tion have been respiratory insufficiency in 22 patients and pulmonary hypertension in 2 patients. Of the patients with respiratory insufficiency, 15 had chronic obstructive pulmonary disease and 7 had restrictive disease. Living donors were used in 4 cases of lobar transplantation, including 3 instances where the transplant was salvaged from the uninvolved portion of the lung resected for cancer. In one instance the lobe was obtained from the recipient's husband. The donor deaths were due to a variety of causes, the largest number being brain damage. The ischemia time of the graft was less than one hour in 4 cases (including Derom's). In 11 cases it was between 1 and 2 hours and in the remaining cases the ischemia time was longer than 2 hours. Of course, the shorter the ischemia time to which the lung is subjected during transfer, the better the function which can be expected.

Of the 24 cases of human lung transplants 17 were unilateral whole lung (13 left and 4 right), one was bilateral whole lung, and 4 were lobe transplants. Two were heart-lung transplants. The first was performed by Cooley and associates⁷ on a 2-month-old infant for irreparable congenital heart disease with pulmonary hypertension. The recipient lived only 14 hours. The other was performed by Lillehei's team⁵ in December, 1969.

Case 4. This patient was a 43-year-old man who had advanced terminal emphysema. His PO_2 was 31 mm Hg when he was taken off oxygen. He also had pulmonary hypertension, 70/40, and right heart failure (RVED 17 mm Hg). His one-second vital capacity was 14% of predicted and residual lung volume was 485% of predicted.

The heart and lungs of the donor were removed at the same time that the heart and lungs of the recipient were being excised. Transplantation was performed within 2 hours. The tracheal anastomosis was done first, then the aorta, and finally the 2 vena cavae.

He was awake and alert on the same day. On the 2nd postoperative day he was fully alert and breathing on his own. He was extubated by the 3rd post-operative day without mechanical respiratory assistance. PO_2 was 89 mm Hg and oxygen saturation was 98%. His timed vital capacity had risen to 90% of normal. It is very unfortunate that this excellent early recovery was interrupted on the 5th day by the beginning of a bilateral interstitial infiltration. He died on the 8th post-operative day with this bilateral

severely purulent *Pseudomonas pneumonia*.

The most recent clinical lung transplantation (No. 24) was performed by Haglin and associates.

Case 5. The patient was a 49-year-old man with chronic obstructive lung disease. First the left lung was removed and replaced with that from a cadaver. When it was found several hours later the patient could not survive on the total function of the transplant plus his remaining right lung, the recipient's right lung also was removed and was replaced by the right lung of the same cadaver donor which had been stored during this time. This patient survived 11 days. The cause of death was pulmonary edema, pneumonitis and rejection.

A serious and interesting physiologic problem was described in most of the patients who had a unilateral lung transplant for chronic obstructive pulmonary disease. Following the operation, the perfusion of the transplant rapidly increased while its ventilation decreased and the graft thus constituted a significant area of physiologic shunt. The pre-existing pathologic alterations in the patient's remaining emphysematous lung were clearly overturning the ventilation—perfusion balance in the graft.^{5,8} One of these alterations, high expiratory airway resistance with expiratory trapping, results in an increase in the volume of the patient's remaining lung and leads to compression of the transplant. The other, high pulmonary vascular resistance, results in the deviation of a larger part of the cardiac output to the underventilated transplanted lung. This discrepancy of ventilation and perfusion between the recipient's own remaining lung and the transplant during the post-operative period is an awkward situation where a graft with a good potential for life-supporting function cannot exert this because of the mere presence of the other lung. The only logical solution to this problem would be removal and replacement of the entire emphysematous pulmonary tissue—simultaneous bilateral lung transplantation.

Another disconcerting observation was that pulmonary infection was a serious complication and even cause of death in a good many of these patients. Fatal sepsis occurred with the organisms originally present in the recipient's lung or donor lung. Moreover, the lungs are continuously ex-

posed to the outside air with all the bacteria it contains; even the normally harmless organisms may cause pulmonary infections in the transplant recipient whose immunologic defense mechanism is precarious because of the immunosuppressive therapy. In this connection, the compromising nature of the present methods used to achieve acceptance of the graft and the urgent need for better methods become evident. Tissue-typing, matching of the donor and the recipient with respect to transplantation antigens, is now possible to a certain degree. However, improvements in these technics and more knowledge are needed in this field where the aim is to select the closest matching donor organ for a given recipient. Such genetic similarity should reduce the amount of immunosuppression required.

As for rejection, the clinical experience has been inconclusive regarding its incidence and degree. Rejection was thought to be present in only a few of the patients. In fact, rejection in lung transplants is especially difficult to diagnose and cannot readily be differentiated from infection. A clinical picture of general malaise, fever, dyspnea, loss of appetite, fall in PO_2 and opacification on x-rays would, of course, be a good but useless description of rejection. This is what we see in dogs when they are about to die with a rejected lung. Furthermore, even this picture is nonspecific and may well be due to infection alone, the treatment of which is entirely different from that of rejection. Criteria for the early detection of rejection in lung transplants remain to be determined.

As in the case of all other organ transplants, shortage of donor lungs is in itself a significant impediment to the progress of clinical lung transplantation, quite apart from the immunologic and physiologic considerations. The realization of organ banks is as yet a very remote possibility. At the present time, methods are being developed in the laboratory to preserve the donor organs from a few hours to a few days by continuous *in vitro* perfusion. However, even these short-term storage methods are still in the experimental stage and not clinically available. Besides, they seem to

be least reliable for storing the lung. Until such methods are developed further, it is essential to adjust the recipient operation to the time of the death of the donor. Prompt action is required in excising and cooling the graft as well as in performing the operation upon the recipient because a cold ischemia time of more than 2 hours sharply diminishes the chances of success in human lung transplantation.

This slowly accumulating clinical experience with lung transplantation, although obviously not rewarding yet in terms of patient survival, has certainly been a most instructive one. Many problems, some of them defined as a result of this experience, await a solution. Justification of a larger scale clinical application will be entirely dependent upon the quality of further research. As a matter of fact, laboratory investigations in this field are now more important and meaningful.

Current Research Efforts

Technic of Lung Transplantation. Replantation of the lung, removal and replacement in the same animal, has been used extensively to study the purely technical and physiologic problems of lung transplantation in the absence of any immunologic reaction. The lung is removed, rapidly cooled by perfusing it through the pulmonary artery for a few minutes and then placed in its original position by re-establishing the continuity of the pulmonary veins, the pulmonary artery and the bronchus. Instead of having to anastomose the pulmonary veins individually, a larger cuff of left atrium containing the ostia of these veins is used. The nerves, the lymphatics and the bronchial arteries which are inevitably divided during pneumonectomy are not repaired. It is logical, therefore, to expect some changes in the subsequent function of the replanted lung due to loss of these secondary structures even when the major blood vessels and the bronchus are re-anastomosed with a faultless technic. Indeed, the related world literature of the past 20 years contains innumerable reports on elaborate measurements of the functional deficits of the replanted lung as a respiratory organ and of the altered characteristics of its vascular bed for which

denervation or interruption of systemic arterial blood supply were held responsible. However, it is now gradually becoming clear to the investigators that this factor has been overstated. During the same period it was common to report a high incidence of thrombosis or stenosis of the left atrial cuff suture line, and leakage or stenosis at the bronchial anastomosis either as a major cause of early high mortality or later as major complications. Therefore, despite this previous impressive volume of work with the unilaterally replanted canine lung (usually the left because it is simpler to perform than the right), there is no doubt that generally an unsatisfactory experimental preparation has been used. It now appears that the majority of such studies have confused the issue rather than clarifying it due to the fact that the results were largely a reflection of imperfect anastomoses.

The recent emphasis on the surgical technic might bring a reliable new definition of the changes to be expected in the function of the replanted lung that can be attributed solely to the act of removal and replacement (interruption of secondary structures and ischemia time).

The technic of replantation of the right lung is essentially the same as that for the left lung because it is readily possible by a meticulous dissection to free the left atrium from the right and thus develop a cuff with the openings of the veins of the right lung. Figures 1, 2 and 3 are photographs taken during replantation of the right lung in a dog.

Figure 1 shows the right thoracic cavity following the removal of the lung. The lung was excised after isolating and placing a vascular clamp on each of the 3 structures to be anastomosed: the left atrial cuff, the pulmonary artery and the bronchus. Figure 2 shows the lung being replanted. The atrial cuff containing the ostia of pulmonary veins is already anastomosed. Suturing of one side of the pulmonary artery is completed, the clamp on the artery will now be rotated and the other side will be sutured. When performing these anastomoses (5-0 silk) suturing from within the lumen should be avoided by manipulating the graft in such a way that the sutures will always be placed on an anterior wall. In this way intima-to-intima approximation is achieved. The bronchus is the last structure to be anastomosed (Fig.

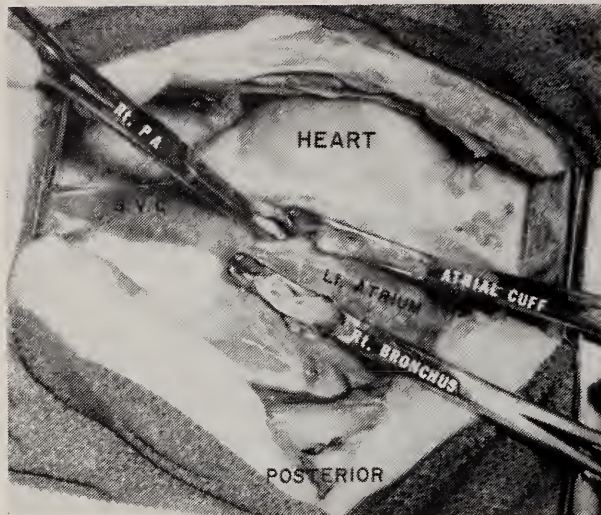


FIG. 1. Following right pneumonectomy a vascular clamp is seen on each of the three major structures to be anastomosed to the corresponding parts on the lung.

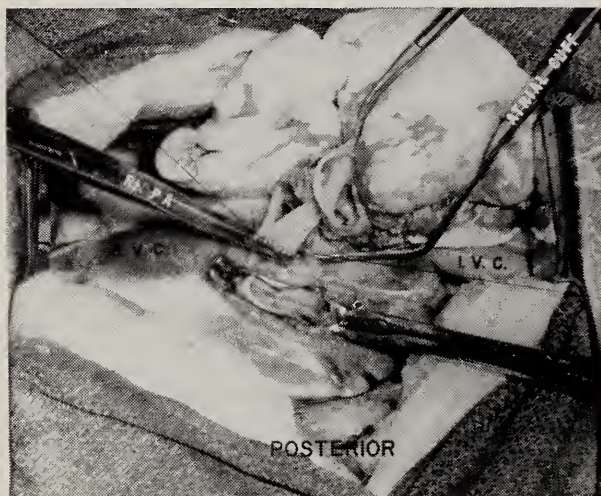


FIG. 2. The lung is brought back. The left atrial cuff containing the ostia of both the superior and inferior right pulmonary veins is already re-anastomosed. The pulmonary artery is being anastomosed. The bronchus is the last structure to be anastomosed.

3). The anterior wall is sutured from within the lumen by everting all layers of both ends (continuous 4-0 silk) to secure mucosal coaptation. Note that the distal bronchial end is trimmed to within 3 to 4 mm of the lobar orifices before suturing is begun (Figs. 2 and 3). Despite interruption of bronchial arterial supply to the graft, bleeding from the distal bronchial end is invariably observed at this stage. This retrograde bleeding attests the potential adequacy of the naturally occurring bronchial-pulmonary arterial communications. The posterior bronchial wall is next sutured (not shown) with over-and-over continuous sutures and then the clamp is removed.

The technic of homotransplantation is

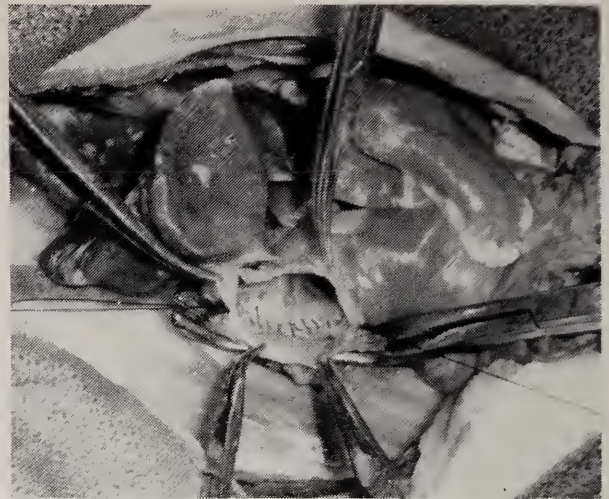


FIG. 3. Anastomosis of the bronchus. (Explanation in the text).

similar but easier to perform because the structures to be anastomosed can be left longer both on the graft and in the recipient. In the 2 clinical lung transplantations in our hospital it was not even necessary to enter the pericardium to use a left atrial cuff as is done in animal studies. The individual pulmonary veins were easily anastomosed.

Function of the Replanted Lung. Mere survival of the animal with one replanted lung does not necessarily reflect satisfactory function in this lung because the contralateral intact lung is itself adequate to support life. A good test of the functional integrity of the replanted lung would be the removal of the opposite lung. A simpler experimental preparation, a physiologic pneumonectomy, is ablation of the function of the other lung by ligating its pulmonary artery. A left thoracotomy permits left lung replantation plus simultaneous right pulmonary artery ligation. Attempts to achieve long-term survival of dogs subjected to this procedure have been unsuccessful for many years. Many investigators, including our group, believed that the replanted (and thus denervated) lung loses its ability to vary its vascular resistance. The explanation for the death of the animals was that following ligation of the opposite pulmonary artery, vascular resistance to the replanted lung remained fixed despite the increase in its blood flow, and this resulted in a very high pulmonary arterial pressure, pulmonary edema, right

heart failure and death. Some investigators have considered these problems to be peculiar to the dog and resorted to a change of species in their studies; better results were achieved with the baboon.⁹ However, recently it has been demonstrated by our group and by others¹⁰ that the canine lung when replanted or transplanted with a suitable technic can have a near normal decrease in its vascular resistance with increasing flow, and that the recipients of such grafts can tolerate simultaneous ligation of the contralateral pulmonary artery.

We are currently following a colony of dogs who were subjected to left lung replantation with immediate right pulmonary artery ligation 5 to 8 months ago. They are vigorously active and their pulmonary arterial pressures are at the upper limit of normal or only moderately elevated. Pulmonary angiograms (Fig. 4), lung scans (Fig. 5) and bronchograms are normal on these dogs.

The results of such studies have shown the ability of the dog to survive solely on the function of the replanted lung. It is clear that when the operation is meticulously performed to avoid constriction of the vascular anastomoses, long term survival of dogs with a somewhat raised but quite tolerable pulmonary arterial pressure can uniformly be expected.

Bilateral Replantation. Several years ago in some preliminary experiments we were unable to obtain long-term survival following bilateral lung replantation.¹¹ These results were in agreement with the generally held view that the afferent nerves from the lung (integrity of the Hering-Breuer reflex arc, for instance) were essential for continued spontaneous respiration. Following the procedure a typical slow and deep respiratory pattern was observed in our dogs. Respirations could not continue long and no permanent survivors were obtained. Our conclusion was that the altered pattern

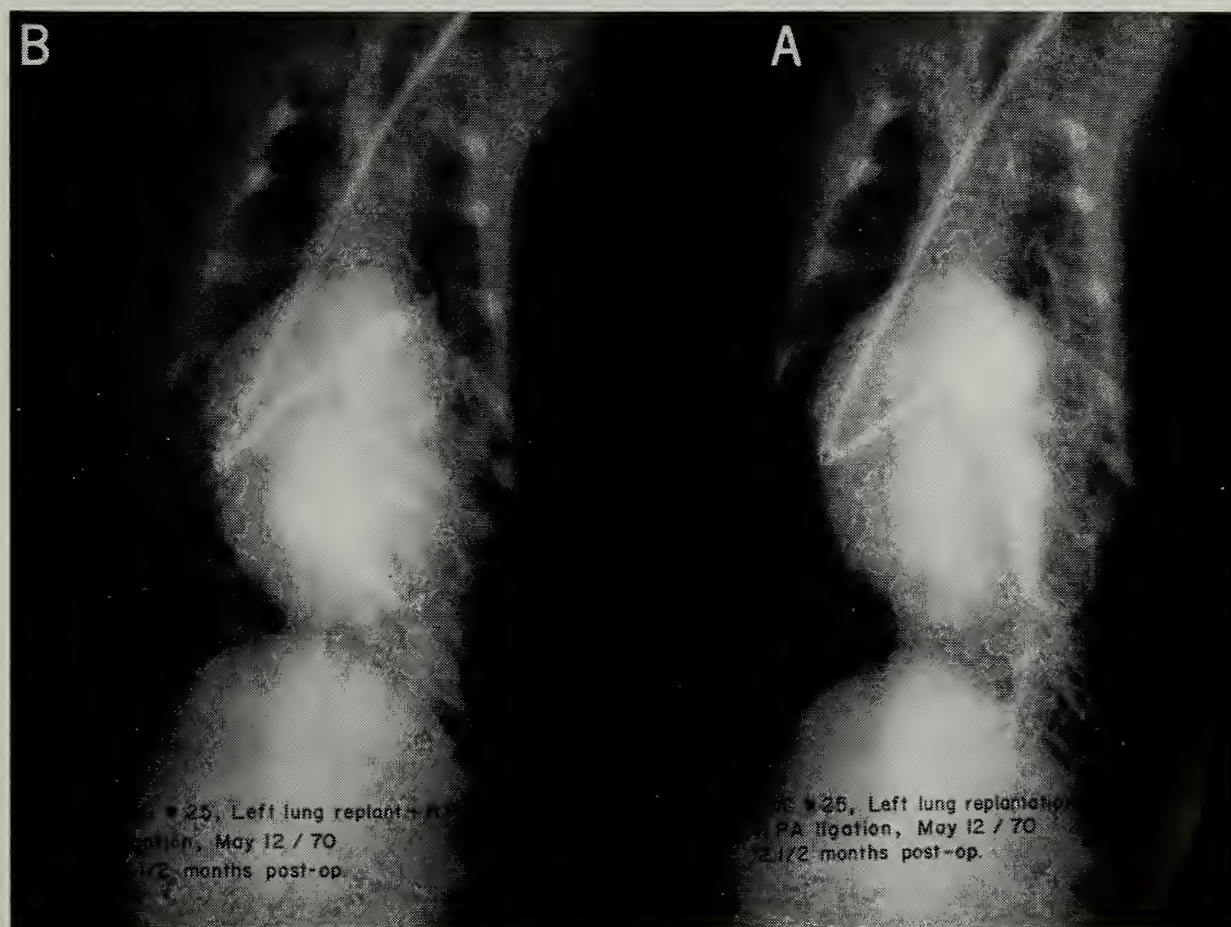


FIG. 4. Pulmonary angiogram of a dog 2½ months after left lung replantation with right pulmonary artery ligation. Note the normal pul-

monary vascular tree of the left lung with absent perfusion in the right lung (A-arterial phase, B-venous phase).



FIG. 5. Lung scan (with macro-aggregated radioactive serum albumin) of a dog 6 weeks after left lung replantation with right pulmonary artery ligation. Normal perfusion of the left lung and absent perfusion on the right lung.

of respiration due to the absence of reflexes originating in the lungs might not be compatible with long-term survival, or at least, the animal without these reflexes was at a definite disadvantage regarding ventilatory adjustments. Since then a few reports appeared in the literature on the survival of a small number of dogs undergoing staged bilateral lung replantation.^{12,13} However, the percentage of survivors of such procedures was very low indeed.

At the present time much effort is being devoted to the achievement of simultaneous replantation of both lungs in the dog. Clearly, demonstration of the feasibility of this procedure will be a step forward for the solution of physiologic problems revealed by the recent clinical experience. In unilateral lung transplantation in patients with emphysema, discrepancies in compliance and in circulation between the transplant and the recipient's remaining dis-

eased lung frequently have resulted in malfunction of the transplant. It is now believed that simultaneous transplantation of both lungs will be necessary in emphysema when lung transplantation is indicated. As a matter of fact, bilateral transplantation would, theoretically, be ideal in all cases where lung transplantation is needed. Lungs from any 2 different individuals, due to their different textures, would respond differently when placed in the thorax of the same recipient. Extreme degrees of this phenomenon are observed when a lung is transplanted from one species to another. For example, when one lung of a dog is removed and replaced by a lung of about the same size from a pig, the dog's own lung remains well expanded while that from the pig cannot inflate well and in effect becomes a right to left shunt. This is apparently due to a disparity between the compliance of the two lungs. When pulmonary xenografting becomes feasible in the future it would need to be performed bilaterally.

After meticulously standardizing right and left lung replantation technics during an extensive past experience, we have performed one stage replantation of both lungs in 26 dogs during the last year. In these dogs first the right lung was removed and replaced, and then the dog was turned to the other side and the left lung was replanted. It was very gratifying to note that anastomotic imperfections were minimized and 38% of the dogs subjected to a surgical operation of this magnitude survived more than a month. Some of these dogs are alive and active now up to 8 months after the operation (Fig. 6). Lung



FIG. 6. Some of the chronic survivors of one-stage bilateral lung replantation procedure.



FIG. 7. Lung scan of a dog 7 weeks after bilateral lung replantation. Normal perfusion of both lungs.



FIG. 8. Normal pulmonary angiogram on a dog 5 months after replantation of both lungs.

scan (Fig. 7), pulmonary angiograms (Fig. 8), pulmonary arterial pressures and blood gas values on these dogs are within normal limits. The results of this study have an important bearing upon the possible application of simultaneous bilateral lung transplantation in man.

Two other aspects of this experience deserve special comment. First, we have observed that edema of the replanted lungs, the chief cause of mortality, was due to ischemic damage that the graft suffers during the procedure. We believe that preservation of the graft during the procedure is the most crucial step in the technic of one-stage replantation of both lungs. The functional quality of the graft depends upon the rapidity of its cooling and is reflected in the degree of post-operative pulmonary edema. However, this damage, presumably to the microvasculature of the graft, is potentially reversible. Various degrees of pulmonary edema were also observed in the animals who eventually became chronic survivors. It was observed by daily chest x-rays to



FIG. 9. Chest x-ray of a dog 4 days after one-stage bilateral lung replantation. Both lungs are edematous. This is a potentially reversible phenomenon.

be most prominent during the first week and to subside thereafter (Fig. 9). Chest x-rays were remarkably clear after the second week (Fig. 10). Workers in this field generally believe that the canine lung readily will tolerate several hours of cold ischemia. However, this view is based on unilateral or staged bilateral replantation experiments where reversible edema would not be detrimental to the respiratory function of the recipient because the other lung

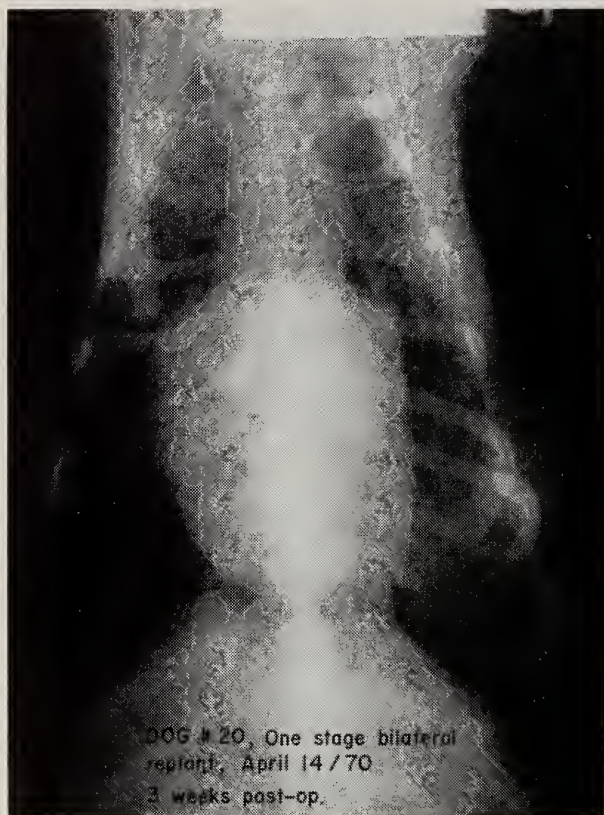


FIG. 10. Chest x-ray of a dog 3 weeks after one-stage bilateral lung replantation. It is perfectly normal.

remains intact. In these experiments we have observed that when the life of the recipient is to depend entirely on the replanted lung tissue, even a cold ischemia time of more than an hour is not acceptable. Thus, the need for improved methods of graft preservation was evident. The second important observation was that the dog will tolerate total pulmonary denervation which accompanies bilateral replantation. When the lungs were well preserved during replantation the animals survived. Apparently, the neural connections of the respiratory center with the lungs (pulmonary

receptors) are not essential for the continued activity and optimal regulation of the intrinsic periodicity of the respiratory center.

Bilateral Lung Homotransplantation in the Laboratory. Simultaneous bilateral replantation experiments have clearly demonstrated the technical feasibility of this procedure. Although potential adverse effects of denervation and interruption of lymphatics and bronchial arteries occurring during replantation still remain to be clarified with further replantation experiments, one can now at least feel confident that these effects are not so serious as to preclude survival and normal activity of the animals.

Performance of controlled studies on one-stage homotransplantation of the entire pulmonary tissue is now the next logical step. Homotransplantation of a single lung has, of course, been studied extensively in the dog. The graft is usually rejected in about 4 to 7 days if immunosuppressive measures are not employed and this period is many times longer with immunosuppression. However, the major shortcoming of such experiments, especially when they are being looked upon as a prototype of lung homografts in man, is the fact that the recipient animal's remaining lung is sufficient to keep him alive and normally active. With modification of rejection by drugs, the dog will remain alive in many instances while the function of the graft is impaired to a degree of becoming useless as a respiratory organ.

To devise experiments so the life of the recipient will depend entirely on the homografted pulmonary tissue will furnish some interesting and much needed information. In this way all the respiratory parameters which can be readily and frequently measured in the recipient dog (without the need for the inaccurate and cumbersome methods of canine bronchspirometry) would reflect the degree of rejection damage. Experience in the immunosuppression of the kidney, liver and heart homografts as a vital organ is already available. This information is lacking in the case of the lung. Especially pertinent would be to find out whether transplantation of as large a

mass of antigenic tissue as two lungs at one time influence the immunologic response of the host and, if so, in what way. Also, study of bilateral lung homografts each from a different donor would be important. Laboratory preparations such as these are very suitable for development of optimal immunosuppressive methods.

Clinical liver transplantation and heart transplantation have advanced to a promising status only after achievement in the laboratory of chronic survival of animals whose livers or hearts were replaced by homografts. Likewise, obtaining chronically surviving animals with homografts of both lungs will give the clinical lung transplanters reason to proceed with confidence.

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The author defines the entity of coal miner's pneumoconiosis, its pathogenesis and morbidity. The preventive measures are emphasized.

Physicians' Involvement With Industrial Productivity*

LORIN E. KERR, M.D.†

It is appropriate that this Symposium on coal workers' pneumoconiosis, the first to be held in a coal mining community since enactment of the Federal Coal Mine Health and Safety Act of 1969, is being conducted in Knoxville. It was here in 1949 that the Knoxville Chest Group was organized for the purpose of investigating practical treatment regimens for coal miners presenting serious problems in chest disease. In 1955, the results of the study were presented by David H. Waterman¹ at the Second Symposium on Coal Workers' Pneumoconiosis in Elkins, West Virginia, the site 3 years earlier of the first medical meeting in the United States devoted exclusively to coal workers' pneumoconiosis². Knoxville was the host for a similar meeting in 1953.

The encouragement and assistance which the United Mine Workers of America Welfare and Retirement Fund has given consistently since its inception to all such endeavors is an acknowledged fact. In the long continuing struggle to control and prevent the man-made diseases plaguing the nation's coal miners the Fund embarked early on a 12-point program described in detail elsewhere, designed to develop professional understanding of these diseases³. Aside from the features of this program which are concerned with the Fund's provision of medical care, there are many techniques which can be implemented readily by all segments of the medical profession. For example, your meeting today is a commendable endeavor to broaden the understanding of coal workers' pneumo-

coniosis and the new Federal Coal Mine Health and Safety Act. I share your desire to make this information available to other physicians. It is also noteworthy that the schools of medicine at both Vanderbilt University and the University of Tennessee are two of the sponsors of this meeting. To my knowledge, this is only the third time any school of medicine in this country has publicly recognized the importance of coal workers' pneumoconiosis. The first was in 1967 when the University of West Virginia sponsored a National Symposium on Coal Workers' Pneumoconiosis. The second was one month ago when the Howard University College of Medicine was co-sponsor with the University of California School of Public Health, of the National Conference on Medicine and the Federal Coal Mine Health and Safety Act of 1969. I would hope that others would be encouraged to take similar action. More important is the need for medical schools to include coal workers' pneumoconiosis in the appropriate curricula, including occupational health, a sorely neglected subject. In fact, the schools of medicine of the United States must accept a substantial share of the indictments directed at physicians for their ill-informed complacency regarding both coal workers' pneumoconiosis and other occupational diseases⁴.

There is a need to hasten the elimination of the artificial barriers between preventive and curative medicine. No longer can the former be characterized as the province of public health and the latter as the sole prerogative of the practicing physician. Vast scientific developments, particularly in the last few years, have made medicine a highly technical and specialized discipline, dependent upon a cooperative relationship with many other disciplines. The health in-

*Presented at A Symposium on Black Lung, University of Tennessee, Knoxville, Tenn., July 16, 1970.

†Director, Department of Occupational Health, United Mine Workers of America, Washington, D.C.

dustry is now the third largest in the nation with annual expenditures exceeding \$60 billion and employing more than three and a half million individuals. Concurrently, technological advances in our society have raised living standards and created a demand for the complete spectrum of medical care.

Closely associated with these changes in medicine and society has been a marked alteration in morbidity and mortality statistics. No longer do the communicable diseases take their previously heavy toll. Today the 3 major causes of disability and death are the chronic diseases, mental illnesses and accidents. While the successful treatment of these conditions requires the individual attention of a physician, there are far too few of them. Authoritative voices claim the number of medical students graduated annually should be doubled. The shortage of physicians in all specialties places a high premium on their services. In fact, a seller's market exists, well illustrated by the recent experience of a prepaid group practice unit that was endeavoring to fill a specialty position in their clinic and two nearby hospitals. The physician offered the job was just completing his residency; he stated he could consider the offer only if paid a net annual income of \$77,000 plus ample fringe benefits!

Just as there is a shortage of physicians so there is a maldistribution. There are some who maintain that it is wasteful to erect highly specialized health centers that reach and advise the people and then, at the crucial moment when patients are in need of some treatment, be forced to dismiss them with the words: go and see your doctor—the doctor that so many of them do not have. Or when he is available his care for an episode of illness may be first rate, but the demands are so overwhelming that his capabilities are never able to encompass more than episodic therapy.

There are other problems having to do with the cost and financing of medical care which seem to be achieving some resolution. There is now so much conversation and there are so many proposals on this subject that it is safe to conclude we are not far removed from a national health

program which hopefully will remove the financial barriers and provide a planned approach to comprehensive, readily accessible medical care.

Inextricably intertwined with the economics of medical care is the thesis that the technology of medicine has outrun its social function. I submit that the main task of medicine is the maintenance of health by the prevention of disease and disability. No longer can we concentrate our efforts on scientific research and assume that the application of results will automatically occur. Medicine, as Virchow stated more than 100 years ago, is a social science⁵. Today, medicine must be concerned with the promotion of health through education, the provision of beneficial living and working conditions and the development of adequate programs for rest and recreation. The second concern is the prevention of disease through the application of traditional measures in addition to protecting those with special physiologic or social problems such as mothers and infants as well as workers with hazardous exposures. When prevention fails, the third concern is the provision of treatment adequate for the restoration of health. Finally, there is the rehabilitation of the cured and disabled to the greatest potential of their capabilities. All of these are social functions requiring the cooperative interdependence of a host of health disciplines. Together they comprise the health industry, the major direction of which rests with physicians. Maladjustments in this system usually indicate we have neglected the sociology of medicine⁶.

Coal workers' pneumoconiosis is a public health problem in that it is an occupational disease affecting the lives of large numbers of people and as such must be eradicated. In the United States today it has been conservatively estimated that 125,000 active and former coal miners have some radiographic evidence of coal workers' pneumoconiosis, and that of this number nearly 50,000 may be disabled by the disease⁷. These are frightening figures. Even more frightening is the fact that physicians are now reporting 35-year-old miners with incipient disability; until recently such cases rarely were found among men younger

than 50 years of age. This development could be a prodromal warning of an epidemic outbreak of coal workers' pneumoconiosis reminiscent of the silicosis debacle at Gauley Bridge, nearly 40 years ago.

Coal workers' pneumoconiosis in the context of my earlier presentation is also a medical problem. While the diagnosis and therapy of illness requires the expertise of a physician, as I indicated the prevention of disease also requires his competency. Thus, the differentiation between preventive and curative medicine is artificial. In the absence of preventive services medical care can never be considered comprehensive. Over the years I have encountered a disturbing lack of concern among many physicians about occupational health and a frighteningly cavalier attitude about the prevention of occupational illnesses and injuries. Annually 14,000 to 15,000 men and women are killed on the job. This slaughter approximates the number of U.S. troops killed in one year in Vietnam. Two million more workers are either permanently or totally disabled, and 7 million lose a day or more of work because of injuries on the job. The rate of injuries per million man-hours worked has been steadily rising during the last decade. This toll is attributed by workers to the lack of adequate safeguards and the generalized speedup occurring throughout all industries. In addition, a decline in real earnings, occasioned by the inflationary spiral, has made overtime and moonlighting essential. The resultant fatigue slows reflexes and workers are the victims.

Disturbing as these statistics may be, they understate the actual conditions. There is ample reason to believe that the figures do not begin to indicate the severity of the situation. More than a decade ago a U.S. Department of Labor official charged that all those concerned with the collection of these figures were playing a numbers game which constantly dealt the worker a "bum hand." In the intervening 12 years nothing has changed except the worsening of conditions.

The statistics on occupational injuries may be incomplete but they are more accurate than information on the extent and

severity of occupational illnesses. For example, we are ignorant about the number of workers disabled or killed by exposure to carbon monoxide, lead, and dynamite. More than half the illnesses reported are diseases of the skin, but with adequate reporting this category of occupational diseases would become far less significant.

Although the precise incidence and prevalence of the pneumoconioses is unknown, knowledgeable estimates can be made from a number of different sources. The protracted efforts of the UMW and the UMW Welfare and Retirement Fund to secure medical recognition of coal workers' pneumoconiosis as a clinical entity in the United States is an outstanding example of the problems associated with occupational dust diseases^{3,4,7,8}. In 1942, British investigators identified the long-known clinical entity called miners' asthma as "coal workers' pneumoconiosis"⁹. The following year this disease, distinct from and in addition to classic silicosis, became compensable¹⁰. Coal workers' pneumoconiosis can be defined as the tissue response to prolonged retention in the lungs of abnormal amounts of dust derived from coal mining operations; it occurs in two distinct forms, simple and complicated¹¹. The disease is reported to have characteristic pulmonary radiologic changes, which have been observed in workers exposed to hard or soft coal and some other carbon dusts both in Britain and the United States¹²⁻¹⁶. Pathologic studies have demonstrated lesions that are reported to be specifically characteristic¹⁷⁻¹⁹. The diagnosis of coal workers' pneumoconiosis is dependent on a work history indicating exposure to coal mine dust together with a characteristic appearance of the chest radiograph and appropriate pulmonary function studies.

Despite 7 major conferences on coal workers' pneumoconiosis this disease is still not well known nor widely recognized in the United States. There are many reasons why U.S. physicians have been reluctant to accept the fact that coal dust is a killer. Until recently little has appeared in medical journals of this country on this disease, and most earlier articles were reports on British research and surveys. This lack of

concern about coal workers' pneumoconiosis has been due, in part, to a belief that conditions reported worldwide could not exist in the United States. It is also due to the mistaken conviction that only silica and dust containing silica are injurious. Moreover, the appellation, "coal workers' pneumoconiosis," is British in origin, and some confusion exists about its applicability to the U.S. scene. This confusion is compounded by a lack of precise knowledge concerning the lethal effects of coal dust. Coal dust does not seem to be a killer until the quantity of dust in the lungs is so great that infection or infarction occurs and a chronic disease of obstruction to airways (bacterial or occupational bronchitis) is diagnosable. A growing body of evidence seems to indicate that pulmonary impairment may be due also to the dense depositions of dust around the small muscular pulmonary arteries. Then there are the attitudes and influence of employer-oriented physicians who avoid facing known facts about the ravages of coal dust in human lungs because to do otherwise could cost money.

Recognition of coal workers' pneumoconiosis by the U.S. medical profession is the first order of business. More than anything, right now, coal miners need physicians who, regardless of past assumptions, are adequately trained and know how to diagnose correctly this man-made disease.

The urgency of this situation is underscored by the recent enactment of the Federal Coal Mine Health and Safety Act of 1969. The passage of this Act, as with all earlier Federal coal mine legislation, was preceded by a mining disaster. On November 20, 1968 the Nation was numbed by the sight and fury of the sight and fury of the devastating explosion in a coal mine at Farmington, West Virginia. The public reaction to this needless slaughter of 78 miners was immediate and violent. Overnight an outraged clamor for corrective measures became a roaring torrent wiping out the longstanding barriers which the solitary importuning of the miners and their Union had previously been unable to tear down. A relentless campaign to eliminate the daily toll of coal mine accidents

soon encompassed the equally destructive hidden losses due to dust diseases. We witnessed an outstanding victory when President Nixon, on December 30, signed into law the Federal Coal Mine Health and Safety Act of 1969.

This new Federal Act is the first breakthrough in the Union's long battle to control and eventually eliminate the "black lung" menace from the coal industry. For the first time a Federal law recognizes an occupational disease and provides Federal funds to pay some remuneration to the victims of this disease. The health sections of Public Law 91-173 attack coal workers' pneumoconiosis from three directions: detection, control and prevention. Each approach goes beyond anything Congress had done previously regarding an occupational disease in a major industry.

Over the years the miners and their Union have seen their fellow workers suffering the ravages of disability and death which are the daily penalties paid for allowing conditions to prevail which produce coal workers' pneumoconiosis. At last, they have secured the enactment of Federal legislation essential for wiping out this man-made plague. They will be highly intolerant of any attempts to delay or subvert enforcement and compliance. Amendments to further strengthen the Law and include other occupational diseases occurring among coal miners are the next order of business.

Equally significant is the national attention focused by the new Federal Law on the pollution of the working environment of a major industry. Much has been written and said within the last few months about the pollution of the air and water and the need to improve the quality of the environment. Nothing is being said, however, about the pollution and contamination of the work environment. Yet, this is where the worker spends at least 8 hours each day. In some industries these are the most hazardous 8 hours endured by the worker. The litany of the on-the-job health hazards, particularly those producing the pneumoconioses, is too well known to need recital. Despite this knowledge there is a disturbing lack of concern among health professionals about

the elimination of morbidity and mortality caused by a contaminated work place. I would hope that the passage of the new Federal Coal Mine Health and Safety Act would stimulate decisive action to rid all work places of pollutants and health hazards.

Until this is achieved, it is likely that workers in other industries will eventually benefit from this new Federal effort to improve working conditions. While the Bureau of Occupational Safety and Health and the Bureau of Mines share appropriate responsibilities, it is significant that the major authority and responsibility for Title II of Public Law 91-173 has been delegated to the U.S. Public Health Service. The new Act, while concerned solely with protecting the health and safety of the nation's coal miners, should so strengthen the program and direction of the Bureau of Occupational Safety and Health that it may soon be required to take similar measures for the protection of the on-the-job health of all workers. This law is the answer to those who through ignorance, apathy, willfulness or a total lack of comprehension of the important role of occupational health have systematically sought to decimate this essential public health program. I am confident the United Mine Workers of America will be joined by all of organized labor to expose and thwart any such moves in the future. I would urge that the Federal Coal Mine Health and Safety Act of 1969 be considered a portent of the future and action be taken to strengthen and expand its impact.

Occupational health and safety represent the labor frontier of the new decade just as the right to organize and bargain collectively represented the labor frontier of an earlier period. Recent legislative action by all segments of organized labor indicates they recognize the need to unite on this issue of the right of men and women to work in safe and healthy surroundings. Labor unions also recognize the need to join forces with other organizations dedicated to the cause of occupational health and safety. An amalgam of all interested groups could effectively focus national attention on the need to stop the economic losses and waste of human life caused by

occupational illness and injury. As noted recently by a labor leader, this can be achieved by the formation of a permanent, well-financed organization—The National Committee for Occupational Health and Safety²⁰.

This challenge to move forward on a broad front to rid the work place of its contamination is in the best tradition of organized labor. It is also in the best tradition of medicine as a social science.

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MEDICAL DIGEST

News of Interest to Doctors in Tennessee

RESUME OF TMA BOARD ACTIONS

TRUSTEES MAKE POLICY DECISIONS IN MEETING ON OCTOBER 11 . . . The TMA Board of Trustees, at its Fourth Quarter Meeting in Nashville on October 11, acted upon a record amount of business . . . One principal matter included TMA's liability and malpractice insurance plan and the Chairman of the committee reported that it was working satisfactorily . . . It was stated that two-thirds of TMA's members are insured under the plan and premiums were among the lowest in the U.S. The Board gave its formal support to the Committee on Group Insurance for the programs that they are undertaking to develop and improve.

* * * * *

GUIDELINES FOR PEER REVIEW COMMITTEES . . . The Board was presented with guidelines for Peer Review Committees on the state and county level, as recommended by the TMA Committee on Peer Review. Peer Review is one of the most important issues in the federal government health legislation today and laws are now being studied and enacted that include peer review mechanisms on the national level. The guidelines proposed are in keeping with the resolution introduced last April in the House of Delegates to establish peer review committees in the state . . . The Board took two major actions, (1) approved the proposed guidelines for TMA and component county medical societies, and (2) adopted a motion that if and when peer review organizations, either PRO or PSRO become law, that TMA move immediately to become a peer review organization. Both actions were adopted and the peer review guidelines have been distributed to county medical societies throughout the state.

* * * * *

REPORT OF COMMISSION ON HIGHER EDUCATION . . . The Board heard a lengthy presentation by two representatives of the Tennessee Higher Education Commission staff. Also, a member of the Commission, Dr. Roland H. Myers, Memphis, participated in the presentation. The responsibility of the study commission was outlined. It was reported that 60% of physicians practicing in Tennessee received their medical education in Tennessee . . . That only nine states educate more physicians than does Tennessee . . . That Tennessee is the leading state in the southeastern area of the nation in the number of medical graduates . . . It was also stated that Tennessee is able to keep only 30% of the number graduated from Tennessee medical schools, and 70% leave Tennessee to practice elsewhere. It was stressed that Tennessee needs to retain more of the graduates that it educates to practice in the state, and a better distribution of physicians is badly needed. The Commission representatives reported on the financing mechanism for the proposed program . . . The Board unanimously endorsed the Commission's approach to the study, and the recommendations and conclusions, and approves the Commission's continued efforts in this endeavor.

JOURNAL EDITOR ANNOUNCES RESIGNATION . . . The Board accepted a letter from Dr. R. H. Kampmeier, Editor of the TMA Journal, who has occupied this position since 1950. Dr. Kampmeier's resignation will be effective at the close of 1971. He urged the Board to select an Editor so that a smooth transition of the Editorship could be realized prior to his retirement. The Board of Trustees referred the matter to the Committee on Publications for the purpose of studying and considering the recommendations made by Dr. Kampmeier, and report to the Board in January, 1971.

* * * * *

STUDENT EDUCATION FUND . . . The Board heard an appeal from the Chairman of the Board of Directors of the TMA Student Education Fund for sufficient funds to continue making loans to approved medical students. The Chairman was accompanied by the Secretary-Treasurer of TMA-SEF . . . The TMA Board was asked to (1) give thought to how best succeed in raising additional funds, (2) re-evaluate and reconsider previous requests for funds, (3) determine steps to try and obtain part of the annual contribution from Tennessee to the AMA Education and Research Foundation, and to see if some funds could be channeled in to the Student Education Fund in Tennessee. Spokesmen for TMA-SEF appealed for a \$10,000 a year ongoing budget. . . The Board considered these matters in detail and agreed to consider on a year-to-year basis what funds could be allocated to the Student Education Fund. \$10,000 was approved to be included in the 1971 budget for student loans.

* * * * *

HIGHLIGHTS OF OTHER ACTIONS . . . Other items of business transacted included: A lengthy report from Dr. Nesbitt, TMA President, concerning the continuing education program. It was the Trustee's action that TMA should exert every effort to make the continuing education program planned for operation by TMA to work at its highest efficiency and exert the leadership necessary to reach this end . . . Approved a report from the TMA President concerning a health care conference to be held early in 1971 for the purpose of additional input into the General Assembly regarding health matters . . . Selected dates of August 5-20, 1971 as the schedule for TMA's first sponsored charter flight to the Orient. Complete information will be forwarded to all members . . . Approved action requesting TMA Legislative Committee to conduct a study on formation of State Eugenics Board . . . Heard a report on the program and format of the 1971 Annual Meeting . . . Appearing on the Annual Meeting program will be AMA's President-Elect, Dr. Wes Hall of Reno, Nevada, and Dr. Max Rafferty, Superintendent of Public Education in the State of California . . . Considered location for the 1974 Annual Meeting with the hope that it could be held in Nashville . . .

* * * * *

Recommended that Tennessee Council on Aging be discontinued . . . Approved recommendation to request all county medical societies to invite Officers or Board members to visit a society meeting for the purpose of closer and more effective communication . . . Appointed Dr. William O. Murray, Dyersburg, as Vice-President from West Tennessee to serve unexpired term of Dr. Kelley Avery . . . Appointed Dr. Richard Ownbey, Nashville, to serve as the Fifth District Representative on the IMPACT Board of Directors . . . Set the amount of rental to be paid by the Nashville Academy of Medicine for space occupied in TMA's building . . . Heard a progress report from the Executive Director on the TMA building construction . . . Approved the Third Quarter Financial Statement, and adopted budget as revised by the Board for 1971.

Public Service

Communications Legislation

Hadley Williams, Assistant Executive Director

IMPACT REPORTS ELECTION RESULTS . . . Independent Medicine's Political Action Committee-Tennessee reports that the committee was involved in more political campaigns last month than at any time since the committee was formed in 1962. Of major significance is the fact that 76 percent of the candidates supported by IMPACT were elected. IMPACT support was extended to candidates in Statewide races, District Congressional races and campaigns for Senate and House seats in the Tennessee General Assembly. Nineteen Republicans and thirteen Democrats were given assistance in their successful bids for public office, reflecting the bi-partisan policy of the committee. The united efforts by IMPACT to elect concerned, capable and responsive individuals to public office in 1970 was due to the dedication of the committee's Board of Directors. With the 1971 dues campaign getting underway next month, TMA members should be familiar with their own district IMPACT Board member as well as responsive to their call for the voluntary annual dues contribution. Board members are: Alvin S. Crawford, M.D., Bristol (1st District); Harold L. Neuenschwander, M.D., Knoxville (2nd District); David H. Turner, M.D., Chattanooga (3rd District); Stephen T. Farr, M.D., Cookeville (4th District); I. A. Nelson, M.D., Nashville, Chairman (5th District); George R. Mayfield, M.D., Columbia (6th District); O. M. McCallum, M.D., Henderson (7th District); Edward H. Welles, Jr., M.D., Dresden (8th District); John B. Dorian, M.D., Memphis (9th District) and Mrs. Richard C. Sexton of Knoxville representing the Woman's Auxiliary.

* * * * *

DENTISTS FORM POLITICAL ACTION COMMITTEE . . . The American Dental Association has formed a political action committee with Dr. John B. Wilson of San Marino, California as chairman. Organized two years ago, ADPAC has moved slowly trying to avoid duplicating mistakes of other political action committees representing professional groups but plans to become a vital force in the 1972 elections. BIPAC (Business and Industry Political Action Committee), AMPAC (American Medicine's Political Action Committee), and labor's COPE (Committee on Political Education) are similar organizations.

* * * * *

LEGISLATION WOULD ENABLE STATE TO SET HOSPITAL RATES . . . The California Hospital Association will ask that a state agency be established to prescribe accounting methods for that state's 560 hospitals and require public reporting of finances. The agency would in turn establish each hospital's rate by regulation. Even though many California hospitals are opposed, CHA says they've been forced into it by climate of public opinion over rising hospital costs and by threatening legislation. CHA's outgoing president stated that a clear and unmistakable public disenchantment with hospital costs and the industry's inability to do anything about their inflationary acceleration. Legislation to set up the public agency will be introduced in the

1971 California legislature. New York recently adopted legislation giving the Commissioner of Health rate-making authority over hospitals. The California proposal would give the state's Health Planning Council the authority.

* * * * *

TENNESSEE HOSPITAL ASSOCIATION ELECTS NEW OFFICERS . . . Frank J.

Meisamer, Administrator of Blount Memorial Hospital in Maryville, was elected President of the Tennessee Hospital Association during the association's October annual meeting in Chattanooga. Robert Morris, Administrator of Madison Hospital in Nashville, was named President-Elect. Named to the THA Board of Directors were Jack Blackman, Administrator of Giles County Hospital, John Miles, Assistant Administrator of Vanderbilt Hospital and Fred Winsor, Administrator of Fort Sanders Presbyterian Hospital in Knoxville.

* * * * *

EACH MEMBER OF CONGRESS COSTS \$335,000 . . . The U.S. Chamber of Commerce reports that taxpayers pay an average of \$335,000 a year for every member of Congress. This is 20% more than we paid in 1968. Even though legislators' salaries were raised to \$42,500 in 1969, they account for only 15% of the \$179 million needed to run Congress. Most of the cost goes for items such as high staff pay and office expenses.

* * * * *

PROBLEMS INCREASE FOR BRITAIN'S NATIONAL HEALTH SERVICE . . . As pressure mounts in the United States for some form of national health insurance, problems keep increasing for Britain's 23-year-old National Health Service with the principal concern being rising costs. Financed mainly by direct taxation, NHS is expected to cost \$4.2 billion this year, up from \$1.1 billion in 1950. NHS accounts for more than 10% of all of Britain's public expenditure. Some 23,000 GPs practice under the plan and they average 2,300 patients each. A pretax income of \$11,500 can be earned by a GP with 2,800 patients with taking on more patients, the only way to improve the total. The current average visit to a GP under NHS lasts 6½ minutes while in U.S. the average is 15 to 18 minutes per visit. The hurried, uninspired health care with poor working conditions reduces the doctor-patient relationship to its lowest common denominator and many leave to practice elsewhere. It is expected that 450 MDs will leave Britain this year.

* * * * *

HEALTH PROPOSALS BEING SUGGESTED IN WASHINGTON . . . In an effort to counter the controversial and expensive national health insurance proposals now flooding Congress, the Administration is working on some plans of their own. Being considered are loans to MD groups to build group practice medical centers; government sponsored catastrophic medical insurance; increased grants to medical schools; using Public Health Service commissioned MDs to provide medical care in slum and isolated rural areas; and increasing government preventive medicine programs. Some of the suggestions are before Congress now and more can be expected when the new Congress convenes in 1971.

* * * * *

HEALTH CAREERS FIESTA BIG SUCCESS . . . The 2nd Middle Tennessee Health Careers Fiesta was held at 100 Oaks Shopping Center in Nashville, November 6-7, with an estimated 13,000 young people attending. Exhibits on some forty distinct professional areas and more than 200 separate job classifications were covered. Television star Ray Stevens served as honorary chairman of the event which served to give students a chance to discover first hand information about the world of health. More than 100,000 promotion kits were distributed to schools in 33 Middle Tennessee counties. The Nashville Academy of Medicine was a co-sponsor.

President's Page

Continuing Medical Education



TOM E. NESBITT

Medicine is an imperfect science at best. Although we receive as students the finest medical training available in the world, ten years after our departure from medical school the educational material we have learned is obsolete. The rapid advances in medical technology today make it virtually impossible for those of us in practice to keep abreast of medical advances on all fronts.

Paradoxically, however, a brief period of time in the practice of medicine teaches the neophyte rather rapidly that 90% of the people who seek a physician's services are in greater need of compassion, reassurance, understanding and friendship than specific medical treatment for organic disease. One's medical education, therefore, becomes applicable as an applied science to only about 10% of one's patients—after ruling out physical illness. Despite the accusations of our many critics among the social-reformers, government planners, labor, and the news media, the allopathic school of medicine (M.D.) is basically a disease-oriented science and not one primarily directed toward prevention of illness or public health or solving the social ills of a nation. Yet many of our critics expect us to be all things to all people.

As this attitude has been promoted by our adversaries, they have simultaneously sought to tarnish our image by charging incompetence and citing meaningless statistics that have no basis for comparison. Such tactics, however, have found friendly ears among government officials who righteously proclaim their obligation to see that tax funds are properly spent, and that the government is receiving quality medicine for its money. As distasteful as this fact becomes in its various applications, it will nonetheless require us as an honorable profession to accept such a challenge to our ethics and morals, and prove to the public and our critics that we are capable of keeping our "house in order". In so doing, we will be providing the proof of our claims that American Medicine is today the finest available in the world.

For this to occur we must each assume a personal obligation to do two things. First, regardless of our field of interest and assumed degree of proficiency, it is imperative to involve ourselves individually in a long-term program of continuing our own medical education. The most practical such method at this moment is the AMA's Recognition Award program. To help every Tennessee physician initiate such an activity, TMA is planning to embark on an ambitious program of CME (Continuing Medical Education) for its members, in a leadership role of coordination and stimulation in the medical schools of our state, and the Regional Medical Programs operating in Tennessee. I would urge each of you to begin your own personal involvement in this field.

Secondly, we must be willing to subject our own medical decisions and care (and those of our colleagues) to ever closer scrutiny than we have been doing through our hospital and medical society committee structure—which will now become known as Peer Review. As we cooperatively bend our energies in these directions, we will find 1971 a better year for all of medicine.

Merry Christmas and a Happy New Year to each of you!

Sincerely,

A handwritten signature in cursive script that reads "Tom E. Nesbitt".

M.D.

President

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DECEMBER, 1970

EDITORIAL

ACTIONS OF TMA IN CONTINUING EDUCATION

Two years ago this month, this page carried the announcement of a renewed interest within organized medicine in the field of continuing education. This came about following recognition by the AMA that recertification for the continued practice of medicine would become a reality some day. The National Advisory Commission on Health Manpower had directed attention to the need for continuing education in the maintenance of quality health care for the people of this country. This Commission had suggested that recertification might be attained by action of one's peers rather than relicensure by a governmental agency. Preceding the Editorial, a Conference had been held by AMA for representatives of the state medical associations to stimulate action in state associations, to

hear from a few which had already been committed for a time to such an endeavor, and to explore means and techniques in continuing education.

The TMA Committee on Continuing Education became active thereafter in organizing and initiating a program for Tennessee, gaining approval by the TMA House of Delegates in 1969 for its implementation. Since then the TMA Committee has directed its attention to the development of programs of continuing education involving the participation of doctors in a variety of activities based upon certain of the community hospitals within the state. The philosophy of this program has been the well established principle that the best form of continuing education is through *self education* by participation in activities designed to extend knowledge and skills.

An Editorial in February 1969, explored motivation for continuing education and touched upon the potential of coercion by government, but pointed to the preference of recertification by peer action. By this time California and Oregon already had embarked upon exploratory moves whereby membership in their state associations might depend upon evidence of continuing education, an adaptation of the policies in this regard of the American Academy of General Practice.

The AMA took a definitive stand in this whole area by the establishment of a Recognition Award for Continuing Education during 1969 and issued over five thousand such among the more than nine thousand applicants, most of them hospital residents in one of the several disciplines. All members of the profession received application forms for such in the early fall of last year. An Editorial in September 1969, recognized this step hoping to stimulate members of TMA to enroll for this Award.

The TMA Committee on Continuing Education, recognizing that credit for the AMA Award did not by definition include time devoted to continuing education in the "home" community hospital, approached the Council on Medical Education and Hospitals of the AMA to resolve this impasse. In answer, it was suggested that community hospitals apply for accreditation on an ex-

ploratory basis to learn what might be accomplished. Thereupon, the TMA urged certain non-urban hospitals to become involved in this exploration (See Editorial in TMAJ, March 1970). Since credit toward the AMA Award will be acceptable from any hospital listed by the AMA Department of Continuing Medical Education, the profession should be proud that Tennessee is one of few states having *smaller community hospitals* accredited by the publication of their courses in the JAMA of August 3, 1970. Here the reader will find listed courses for the Bristol Memorial Hospital, the Montgomery County Medical Society, and the Clarksville Memorial Hospital, the Bradley County Hospital (Cleveland), the Rhea County Hospital (Dayton), the Woods Memorial Hospital (Etowah), Jackson-Madison County General Hospital, Holston Valley Community Hospital (Kingsport), Blount Memorial Hospital and Blount County Medical Society, (Maryville) Warren County General Hospital and Warren County Medical Society (McMinnville), and the South Pittsburgh Hospital. (The RMP has had a hand in the development of programs of continuing education in some of the urban hospitals as in Chattanooga and Knoxville especially.)

The TMA Committee first approached the Regional Medical Program in January 1969 to explore in what fashion it could cooperate with TMA in its program of continuing education. The Committee's Resolution as passed by the House of Delegates in April 1969 then read:

"RESOLVED, that the development of such a program this Committee will have as its function to act as a liaison and catalyst to local medical societies and the medical staffs of community hospitals. The Committee will seek the cooperation of the Regional Medical Programs to assist it in the promotion of the continuing education program."

The new Chairman of the TMA Committee, Dr. John B. Thomison, of Nashville, and your President, Dr. Tom E. Nesbitt, are in active communication with the Mid-South Regional Medical Program at Nashville and the Regional Medical Program, Memphis, in seeking ways and means of integrating and correlating the interests of organized medicine and of the Regional

Medical Programs. The readers will be kept informed of the progress of these activities.

This Editorial has as one of its purposes, that of informing Tennessee's profession of the ongoing history and progress of that most important facet of its professional life—continuing education. In addition, it has the purpose of stimulating the members to take advantage of documenting their continuing education. All of us have received within recent weeks application for the 1970 AMA Physicians Recognition Award. (To date 17,000 applications have been received; of these 14,000 applicants were found to have met the requirements and have received the Award.)

It remains the hope of the medical profession that recertification for continuing education will remain in its hands as proposed to date. Thus, the state associations of Oregon and Pennsylvania have taken action which may lead to evidence of continuing education for membership. Specialty societies have or are developing *self assessment* examinations. (The American College of Physicians which initiated this approach 3 years ago is currently offering its second periodic examination.) Specialty Boards of Certification are exploring periodic recertification and some undoubtedly will offer such to those who have been certified. The American Board of Family Practice has written into its policy, recertification at a future date. *The documentation of continuing education should remain in the hands of one's peers.* The Federal Government has to date given the profession free rein to develop what it may in the area of recertification. When a national health insurance plan has evolved, which it will within 5 years or so, the means will be at hand to police quality of medical care. If the medical profession were to develop an effective method of self policing, it might keep government out of the "doctor's hair" in this regard at least. It is reassuring that *here* bureaucrats sometimes have the sense to stay outside the field of purely professional matters. For example, insofar as the Editor knows, the prerogatives of licensure and certification of specialized competence has been left untouched in England in the hands of the several Royal Colleges even

though in the two decades of the National Health Service it has controlled hospitals and the delivery of medical care.

It behooves all physicians to join hands in keeping recertification within the medical profession and for policing its own competence. Have you applied for the AMA Award? Have you found that you can get credit for taking part in the programs of hospitals 30 or 40 miles distant from your office? Have you searched the JAMA of August 3, for what is available to you in Tennessee?

R.H.K.

IN MEMORIAM

McCleave, Benjamin F., Memphis. Died October 14, 1970, Age 82. Graduate of the University of West Tennessee School of Medicine, 1914. Member of the Shelby County Medical Society.

Kimbrough, Robert Cook, Madisonville. Died October 18, 1970. Age 85. Graduate of the University of Nashville School of Medicine, 1908. Member of the Monroe County Medical Society.

Tilley, W. Kenneth, Lebanon. Died October 21, 1970, Age 61. Graduate of The University of Tennessee School of Medicine, 1935. Member of the Wilson County Medical Society.

PROGRAMS AND NEWS OF MEDICAL SOCIETIES



New Members

The *Journal* takes the opportunity to welcome these new Tennessee Medical Association members.

CHATTANOOGA-HAMILTON COUNTY MEDICAL SOCIETY

Peggy J. Howard, M.D., Chattanooga

CONSOLIDATED COUNTY MEDICAL SOCIETY

James T. Craig, Jr., M.D., Jackson
John A. Kendall, M.D., Jackson

DAVIDSON COUNTY MEDICAL SOCIETY

W. Barton Campbell, M.D., Nashville
Joseph H. Fishbein, M.D., Nashville
Daniel C. Geddie, M.D., Nashville
Aubrey F. Haynes, M.D., Madison
Charles E. McGruder, M.D., Nashville
Pedro J. Perales, M.D., Nashville
John T. Wilson, M.D., Nashville

SULLIVAN-JOHNSON COUNTY MEDICAL SOCIETY

Jan Dewitt, M.D., Bristol

Knoxville Academy of Medicine

The Knoxville Academy of Medicine featured outstanding speakers for its departmentalized Continuing Education Program in November. This program, held monthly following the Academy's business meeting, has been an eminent success since it was initiated recently.

Dr. Robert M. Allman, from the American Registry of Pathology in Washington, D.C., spoke on "The Role of the Radiologist in the Evaluation of Bone Diseases" before the section of Radiology, Pediatrics and Orthopedics. On the medicine and surgery program, Drs. Dan Copeland and A. L. Cummins, both from the University of Tennessee Medical School in Memphis, discussed "Surgery and Cardiacs." Drs. George Gee, Robert Gentry, and Ken Carpenter spoke on the subject of "Confidentiality" at the psychiatry section.

Roane-Anderson County Medical Society

Dr. Edward P. Woodward, professor and head of the Department of Surgery at the University of Florida School of Medicine in Gainesville, delivered the Dwight Clark Memorial Lecture before the Roane-Anderson County Medical Society in October. The meeting included a social hour and dinner preceding the lecture and was held at the Holiday Inn in Oak Ridge.

NATIONAL NEWS

The Month In Washington (From Washington Office, AMA)

The American Medical Association challenged charges of widespread tax cheating by physicians and renewed its offer to co-

operate with the government in cracking down on dishonest doctors.

In letters to Sen. Russell B. Long (D., La.), chairman of the Senate Finance Committee, Walter C. Bornemeier, M.D., president of the AMA, answered the tax-cheating charges and Ernest B. Howard, M.D., executive vice president of the AMA, renewed the offer of cooperation. But Howard also said that mandatory reporting of unassigned fees by insurance agencies would be an ineffective and unfair way to try to uncover doctors cheating on their income taxes on payments for their services under medicare and medicaid.

The tax-cheating charges grew out of testimony given by Meade Whitaker, who then was tax legislative counsel for the Treasury Department, at a hearing of the Senate Finance Committee during its consideration of changes in the medicare and medicaid programs. He said that many providers of services under the two health care programs might have "substantial deficiencies" in their income tax returns.

In a letter to Long and Sen. Wallace F. Bennett (R., Utah), a ranking minority member of the finance committee, Dr. Bornemeier said that the charges had been widely distorted in the press and these reports do the medical profession a serious injustice.

Whitaker testified that from an original list of 11,000 who received payments of \$25,000 or more for services rendered under medicare and medicaid in 1968, 4,000 returns warranted a detailed audit by the IRS.

With preliminary audits completed on 3,000 of the 4,000 returns, there were indications that 1,500 of these showed "substantial deficiencies," the Treasury reported. "Substantial deficiencies" later were defined as being underpayments of more than \$100.

Dr. Bornemeier said that this testimony was being widely interpreted to mean either that one-third of the medical profession was cheating (4,000 of 11,000 cases to be audited) or that one-half of the profession was cheating (1,500 alleged offenders from 3,000 actual audits).

"Assuming the worst—that 1,500 doctors

out of 11,000 are guilty of income tax irregularities—the correct proportion would be between 13 and 14 percent rather than 33 or 50 percent," Dr. Bornemeier said.

The AMA president called on the Treasury Department to be specific in their charges since the interpretation by the press, growing out of their testimony, reflected on the profession as a whole.

"As of now," he continued, "there seem to be 1,500 cases where substantial deficiencies may exist. I think we should know what proportion of these cases represents cause simply for further examination and what proportion represents cases that may realistically be expected to end up with the fraud division of the IRS.

"I think we should know what proportion of the serious cases involve physicians. I suspect the figures given include osteopaths, dentists, pharmacists, and optometrists and others eligible to receive medicare-medicare payments."

Dr. Bornemeier told Long that his request for documentation of these cases was not a defense for the dishonest physician or anyone else who attempts to falsify an income tax return.

"We are on record," the Chicago physician said, "as requesting examples of wrongdoing by doctors receiving payments under government health programs so that we may take action of our own."

Dr. Howard said that "the dishonest or incompetent physician hurts us just as much as he harms his government."

Dr. Howard said that in a recent statement by Long that the AMA had been "completely forthright and honorable, and sought to shield no one" is "exactly our position."

The AMA official also noted that Long at a recent hearing of the finance committee had referred correctly to previous requests by the AMA that it be given examples of suspected chicanery by physicians in government health programs "so that we might take our own action."

As for mandatory reporting of unassigned medical payments—those given to the patient rather than to the physician—Dr. Howard said such a requirement "would not provide the Internal Revenue Service

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with helpful and meaningful data." He urged rejection of such an amendment proposed by the Treasury Department. A joint House-Senate conference committee rejected it last year in considering tax reform legislation.

The Treasury Department proposed that Blue Cross-Blue Shield organizations, medicare and medicaid agencies, and other health insurance carriers be required to report unassigned payments for medical services.

Dr. Howard pointed out that millions of patients have more than one health insurance policy and may collect total benefits exceeding the physician's charge, and that some patients even may not use the insurance payment to compensate the physician. Physicians also would have to set up costly additional bookkeeping record procedures to list separately and in detail each charge to a patient in excess of \$25, the AMA official said.

"The proposal of the Treasury Department would place physicians in a unique category under our tax laws," Dr. Howard said. "We know of no other provision in the tax laws which singles out one class of individual taxpayers, requiring payers to report to the IRS individual payments made to taxpayers as well as the annual aggregate amount of such payments.

"We believe . . . that the proposed . . . amendment is unfair and discriminatory and would do little to accomplish any goal for an improved system. Instead, as an additional cost burden, it would place further pressure on the cost of medical care."

* * *

President Nixon, at a bill-signing ceremony, praised the new Drug Abuse Act for providing "a forward looking program" for treatment of drug addiction as well as strengthening the government's law enforcement powers in the field.

The new law provides for the Department of Health, Education and Welfare running extensive programs for the treatment and rehabilitation of drug users and for anti-drug education. It authorizes HEW's National Institute of Mental Health to spend \$189 million over three years to

build and staff treatment facilities, to support rehabilitation programs and to increase anti-drug education programs. Another \$1 million is authorized for creation of a presidential commission on marijuana.

State comprehensive health plans getting Federal aid must now include drug abuse programs, and an Administration spokesman suggested that all states model their drug control laws on the Federal statute.

Before final passage, Congress modified the original legislation to meet many of the objections of the medical profession against a proposal that would have allotted most classification powers and research control to the Justice Department. The attorney general can declare drugs as dangerous but he is bound by HEW's medical and scientific evaluations.

The strengthened enforcement provisions are aimed at the drug pusher with lighter penalties for drug possession, particularly by minors. Federal first offense cases for drug users are lowered from felonies to misdemeanors. Under this provision, a person found guilty of possessing marijuana for the first time will not necessarily be subjected to an automatic stiff jail sentence. But to facilitate arrest of pushers, the controversial "no-knock" clause was retained.

Requirements as to records kept by physicians remain as under the old narcotics law except where he regularly dispenses a non-narcotic drug and charges for it.

The new law broadens the former narcotics statute to include, with varying restrictions and controls, amphetamines, barbiturates and other drugs ruled dangerous. At the start, controls will be drastically tightened over marketing the liquid form of amphetamines which can be taken by injection.

Companies producing or distributing a long list of commonly prescribed stimulants, depressants and tranquilizers will be subject for the first time to Federal registration requirements. The Narcotic Bureau also now has a new power to set production quotas for such non-narcotic drugs.

C. Joseph Stetler, president of the Pharmaceutical Manufacturers Association, praised Congress and the Administration for enactment of the law:

"Drug abuse has become a frightening problem for millions of Americans. It is absolutely proper for the Federal Government to exercise this type of aggressive leadership to stem the use of physically and psychologically damaging illicit substances, to control the misuse of legitimate medicines produced for the health and welfare of citizens, and to support rehabilitative needs for victims of the drug problem."

Other health legislation recently enacted into law included:

—The Communicable Disease Control Act of 1970 which authorizes expenditure of \$210 million over the next three years for vaccination and other control programs against tuberculosis, venereal disease, German measles, measles, polio, diphtheria, tetanus, whooping cough, RH disease, and other diseases judged by the Secretary of Health, Education and Welfare to be major problems.

—The Regional Medical Programs and Comprehensive Planning and Services Act of 1970 extending the programs for three years with authorized spending of \$545 million for RMP and \$52 million for CHP. Further appropriations totalling \$961.5 million for project grants for areawide health planning; training, studies and demonstrations; comprehensive public health services, and health services development. RMP is expanded to include kidney disease. The new law provides for a systems analysis of national health care plans and for a cost and coverage report on such legislation. A National Advisory Council on Comprehensive Health Planning Programs is created.

—The Health Training Improvement Act of 1970 which extends the allied health educational program for three years with aid to schools and students. Authorized appropriations total \$308.5 million. The maximum yearly loan will be \$1,500 and the maximum aggregate loan, \$6,000, for any student. A forgiveness of up to 50 percent will be allowed if the student practices in a shortage area or for a nonprofit organization after graduation.

—The Developmental Disabilities Services and Facilities Construction Amendments of 1970 extending the mental retardation facilities construction program

for three years and expanding it to include grants for planning, provision of services, and construction and operation of facilities for persons with developmental disabilities. Authorized appropriations total \$295 million.

MEDICAL NEWS IN TENNESSEE

University of Tennessee Medical Units

Roland H. Alden, A.B., Ph.D., has been named acting chancellor at the University of Tennessee Medical Units, succeeding Jack K. Williams, who will become president of Texas A & M University on November 1, the appointment being made by Dr. Edward J. Boling, president of the University of Tennessee system.

Dr. Alden's appointment represents yet another step in the Medical Unit's search for a permanent chancellor. Dr. Williams had held the position on a temporary basis since the resignation earlier this year of Homer F. Marsh, Medical Units chancellor since 1961.

Dr. Alden, who serves permanently as dean of UT's College of Basic Medical Sciences and its Graduate School-Medical Sciences, also holds a professorship in the Department of Anatomy. He earned the A.B. degree (cum laude) from Stanford University and the Ph.D. from Yale University, where he taught briefly before joining the UT faculty in 1942.

He is immediate past president of the American Association of Anatomists and has served on the Association's executive committee and its committee on educational affairs. Presently a member of the commission on graduate education of the National Association of State Universities and Land-Grant Colleges, he has just completed six years' service as chairman of the USPHS Anatomical Sciences Training Committee.

* * *

Dedication ceremonies were held October 31, 1970, for the recently completed Child Development Center at the University of Tennessee Medical Units. The seven-story, \$5.5 million structure, under construction since 1967, will serve as a regional training

base for personnel working with mentally retarded and other developmentally handicapped children; it also will provide evaluation and treatment facilities for numerous children in the Mid-South. Financing was through a combination of federal and local funds.

About 2,000 students each year undergo instruction and clinical training in pediatrics, psychiatry, neurology, ophthalmology, otolaryngology, genetics, nursing, nutrition, social work, special education, physical therapy and occupational therapy. Students come not only from the Medical Units and other University of Tennessee campuses across the state, but from Memphis State University, Meharry Medical College, University of Arkansas, University of Mississippi and Florida State University, receiving course credit at their respective schools for study or training completed at the Center.

Facilities of the Center include classrooms, testing and evaluation rooms, laboratories, observation rooms, residential units, kitchens and an extensive audio-visual system.

Vanderbilt University School of Medicine

Dr. Norman E. Shumway, the famous cardiovascular surgeon from Stanford University and a Vanderbilt alumnus, delivered the combined Alpha Omega Alpha and Pauline King Lecture on October 23, 1970 at Vanderbilt University. Dr. Shumway spoke on the subject "Cardiac Transplantation: Experimental and Clinical Aspects."

Dr. Shumway received the 1970 Modern Medicine Award for Distinguished Achievement "for painstaking development of cardiac surgery techniques in animals, thus influencing the advent of heart surgery transplantation." He performed the first adult heart transplant in the United States. He is now professor and head of the division of cardiovascular surgery at Stanford.

* * *

Dr. Alan Soloman, associate professor of Research at the University of Tennessee Memorial Hospital in Knoxville, was the speaker for the first in a series of eight Hematology Lectures scheduled at Vander-

bilt. These lectures are coordinated by students from Vanderbilt University School of Medicine and Meharry Medical College and comprise a senior year elective course integrated with post-graduate education. The lectures are supported by a grant from the Mid-South Regional Medical Program and will feature eight leading hematologists from other institutions in Tennessee who will spend one day visiting Meharry and Vanderbilt giving a clinical and general lecture open to the entire medical community. Three were scheduled for this Fall and five will be given in the Spring of 1971.

Dr. Rudolph Jackson, Department of Hematology and Pediatrics, St. Jude's Children's Research Hospital, delivered the second lecture and Dr. Don Pinkel, professor of Pediatrics and Medical Director at St. Jude's, delivered the third lecture. Dr. Jackson spoke on "Sickle Cell Disease," and Dr. Pinkel's subject was "Leukemia."

* * *

Dr. Randolph Batson, Dean and Director of Medical Affairs, was elected president of the Directors of University Medical Centers. This organization serves as a forum for counsel and exchange of ideas and information reflecting total university health education. It is also concerned, as a group, with the evaluation of federal legislation regarding funding and other programs related to health education.

TAGP 22nd Scientific Assembly

The 22nd Scientific Assembly of the Tennessee Academy of General Practice was held on November 5-6 at the Civic Auditorium in Gatlinburg. The total registration was 566 which included 238 physicians, 153 exhibitors, 155 wives of physicians and 10 staff representatives.

The featured speaker for the assembly was William G. Lotterhos, M.D., President of the American Academy of General Practice, who addressed the Congress of Delegates and the Annual Banquet. Dr. James A. Burdette, Knoxville, was presented the General Practitioner-of-the-Year Award at the banquet and the following officers were installed for 1971:

President: Irving R. Hillard, M.D., Nashville

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M.D., Knoxville
Alternate Delegate—AAGP: Tinnin Martin,
M.D., Memphis

PERSONAL NEWS

Dr. Earl Ginn, Nashville, has been elected President of the Tennessee Kidney Foundation. Dr. Ginn was named to the position at the annual meeting of the Foundation which was held recently in Jackson.

Dr. John D. Pigott, Memphis, was named President-Elect of the Tennessee Division of the American Cancer Society. **Dr. Thomas C. Monroe**, Chattanooga, has assumed the office of President for the coming year.

Dr. H. A. Morgan, Jr., Lewisburg, will head the newly formed South Central Regional Office of the Tennessee Department of Public Health. The new State Office will be located in the County Health Department Building in Lewisburg and will assist County Health Departments in Marshall, Bedford, Coffee, Franklin, Lincoln, Moore, Giles, Maury, Lawrence, Wayne, Lewis, Hickman and Perry counties.

Dr. Paul Spray, Oak Ridge, was the featured speaker at a dinner meeting of the Chattanooga Chapter of the Tennessee Society of Professional Engineers which met recently in Chattanooga. Dr. Spray discussed his experiences under the Medico-Care Program in Biafra and Vietnam.

Dr. C. N. Hickman, Bells, has been named County Health Officer for Gibson and Crockett counties, succeeding the late **Dr. M. D. Ingram**.

Dr. Ralph H. Shilling, Gatlinburg, recently received the Legion of Merit Medal, the highest peacetime U.S. Army Award given a reserve officer, at a ceremony which took place at the University of Tennessee Armory in Knoxville. Dr. Shilling, who holds the rank of Colonel, was commended for his excellent performance as Commandant of the U.S. Army Reserve School at Knoxville.

Drs. George D. Dodson, Jr. and **Edward F. Crocker** have announced the association of **Dr. A. Barnett Scott** in the practice of general, vascular and thoracic surgery in Jackson.

Twenty-four members of the Tennessee Medical Association were inducted into the American College of Surgeons at the 56th Annual Con-

vention in Chicago. The following inductees were from Memphis: **Drs. George H. Burkle, III, Virgil G. Crosby, Charles E. Frankum, James B. Green, Jr., E. Jeff Justis, Jr., Phillip A. Pedigo, John E. Robinson, Jr., and Winfred L. Wiser.** Others included: **Woodruff A. Banks, Jr., William K. Dwyer, Paul E. Hawkins, Thomas E. Hayes, Roger G. Vieth and Julian M. Yood**, all of Chattanooga; **Walter L. Mason and David O. Patterson**, both of Greeneville; **Horace B. Cupp, Jr.** and **R. Page Powell**, both of Johnson City; **Roy L. Seals and William T. Youmans**, both of Knoxville; **Joseph C. Bailey** of Murfreesboro; **William M. Cocke, Jr.** and **E. Dewey Thomas**, both of Nashville; and **Charles G. Stockard, Jr.**, of Sweetwater.

Drs. Robert Hardin, Nashville, **Billy Green Lyle**, Clarksville, and **Robert Lee**, Dover, were participants in a Heart Forum which was held recently in Dover.

Dr. Lynn F. Blake, Knoxville, has been named Chief Pathologist and Director of Laboratories at Baptist Hospital in Knoxville.

Dr. Donald LaFont, Jackson, was guest speaker at the October meeting of the Jackson Unit of the Tennessee Diabetes Association. Dr. LaFont's topic was "Juvenile Diabetes."

Dr. Dan J. Riddick, has been elected Chief of Staff of the Carroll County General Hospital in Huntingdon.

Dr. Roger L. Hiatt, Memphis, professor and chairman of the Department of Ophthalmology of the University of Tennessee College of Medicine was named 3rd vice-president of the American Association of Ophthalmology at its annual meeting in Las Vegas, Nevada on October 5-9, 1970.

Drs. Randolph Turner and Louis G. Britt, both of Memphis, authored an article entitled "Perianal Condyloma" which appeared in the November issue of the *Southern Medical Journal*.

Dr. B. C. Smoot, Jr., has announced the association of **Dr. J. R. Troop, Jr.**, for the practice of medicine in surgery in McMinnville.

ANNOUNCEMENTS

Calendar of Meetings 1971

State

April 15-17

Tennessee Medical Association,
136th Annual Meeting, The
Read House, Chattanooga

National

January 2-21

American College of Surgeons,
Scientific Winter Cruise, com-
bined with sectional meetings,
Panama City, Caracas, and
San Juan

January 29-31	Southern Radiological Conference, Grand Hotel, Point Clear, Ala.	May 5-8	"Clinical Electrocardiography," Henry Horton State Park, Lewisburg
February 3-7	American College of Cardiology, Sheraton Park Hotel, Washington, D.C.	May 24-28	"Intensive Review of the Science of Anesthesiology," the University of Tennessee College of Medicine, Memphis
February 8-10	American Academy of Occupational Medicine, Park Sheraton Hotel, New York	June 3-4	"Medical Aspects of Sports," the University of Tennessee College of Medicine, Memphis
February 14-15	AMA Congress of Medical Education, 67th Annual, Palmer House, Chicago		
February 20-24	American Academy of Allergy, Palmer House, Chicago		
March 6-11	American Academy of Orthopedic Surgeons, Civic Center, San Francisco		
March 8-11	New Orleans Graduate Medical Assembly, Roosevelt Hotel, New Orleans		
March 15-17	American College of Surgeons, joint meeting for Doctors and Nurses, Roosevelt Hotel, New Orleans		
March 25-26	24th National Conference on Rural Health, Atlanta Marriott Motor Hotel, Atlanta		
March 26-28	American Society of Internal Medicine, Brown Palace, Denver		
March 28-Apr. 2	American College of Physicians, Hilton Hotel, Denver		
March 29-Apr. 3	American College of Radiology, Chase Park Plaza, St. Louis		

UT Continuing Education Courses for 1971

The following is a list of Continuing Education Courses to be offered by the University of Tennessee Medical Units from February 8 to June 4, 1971:

February 8-12	"Review Course for General Practitioners," the University of Tennessee College of Medicine, Memphis
March 1-5	"Fundamentals of Otolaryngology," the University of Tennessee College of Medicine, Memphis
April 7-9	"Obstetrics and Gynecology," the University of Tennessee College of Medicine, Memphis
April 26-28	"Psychiatric Interview: 'Short Term' Active Psychotherapy," the University of Tennessee College of Medicine, Memphis

AMA Rural Health Conference Scheduled

The American Medical Association's Council on Rural Health is sponsoring its 24th National Conference on Rural Health on March 25-26, 1971 at the Marriott Motor Hotel in Atlanta, Georgia.

The purpose of this conference will be to explore new needs and report on new developments in rural health care systems, the role of the health team, the medical school and community medicine, promoting community health action, organization for emergency medical services, development of group practice, youth concerns, community involvement and community planning, health care for all people, Regional Medical Programs—impact on rural America, and the new physician in rural America.

The conference will convene at 9:00 a.m., Thursday, March 25, and conclude at 3:00 p.m., Friday, Registration opens at 8:00 a.m., Thursday and there is no registration fee involved.

For additional information, please write Bond L. Bible, Ph.D., Council on Rural Health, American Medical Association, 535 North Dearborn, Chicago, Illinois 60610.

University of Kentucky Symposium Scheduled in February

The first symposium on Modern Methods for the Medical Work-up was held at the University of Kentucky in January, 1970. It explored ways to improve the efficiency of the hard-pressed practitioner. This included the collecting, analyzing, and evaluating of medical histories, physicals, and laboratory data on patients. During the year since that first symposium there have been rapid advances in this field. This year's symposium has for its objective the discussion, presentation, and demonstration of the applications that are now available for use in any physician's office.

Modern Methods for the Medical Work-up, 1971 will be held at the University of Kentucky Medical Center on February 25-27, 1971. The program chairman is Irving Kanner, M.D. and the registration fee is \$125.

For further information, please contact Frank R. Lemon, M.D., Associate Dean, Continuing Education, College of Medicine, University of Kentucky, Lexington, Kentucky 40506.

T M A

THE VIEWING BOX

Universal Health Insurance

*Presented by Robert J. Myers, F.S.A., Chief Actuary,
Social Security Administration*, to the Annual Meeting of the
Oklahoma State Medical Association, May 16, 1970*

THE MOTTO of the actuarial profession is, in brief, "To substitute facts for impressions." In appearing before this convention on such an important and complex subject as national health insurance and Medicare, I would certainly want to stay with the facts of the matter and not to bring in impressions and emotions, as do so many persons when they get into these areas.

To start off with, I would disavow any claim to being a complete expert on all aspects of this subject. Rather, my experience has only been in the financing aspects. And most certainly, financing, although important, is by no means of primary importance, but rather the actual provision of medical care is paramount, and in that area you, my audience, have far more expertise. In fact, I believe that this is the great weakness of many of the advocates of national health insurance—namely, that they do not have a real knowledge of many of the complex elements that go into providing high-quality medical care, much as they might claim that they do.

Before going any further, let me define what I believe the term "national health in-

*The views expressed here are those of the speaker and not necessarily those of the Social Security Administration.

Robert J. Myers, F.S.A., has been Chief Actuary with the U.S. Social Security Administration since 1947. Mr. Myers has held various actuarial positions with the Social Security Administration and has made many missions of technical assistance in connection with social security to many foreign countries. He is a member of the Committee of Social Security Experts, International Labor Office and Vice-Chairman of the Committee of Social Security Actuaries, International Social Security Association. He is a Fellow of the Society of Actuaries, the Casualty Actuarial Society, the Conference of Actuaries in Public Practice and the American Statistical Association.

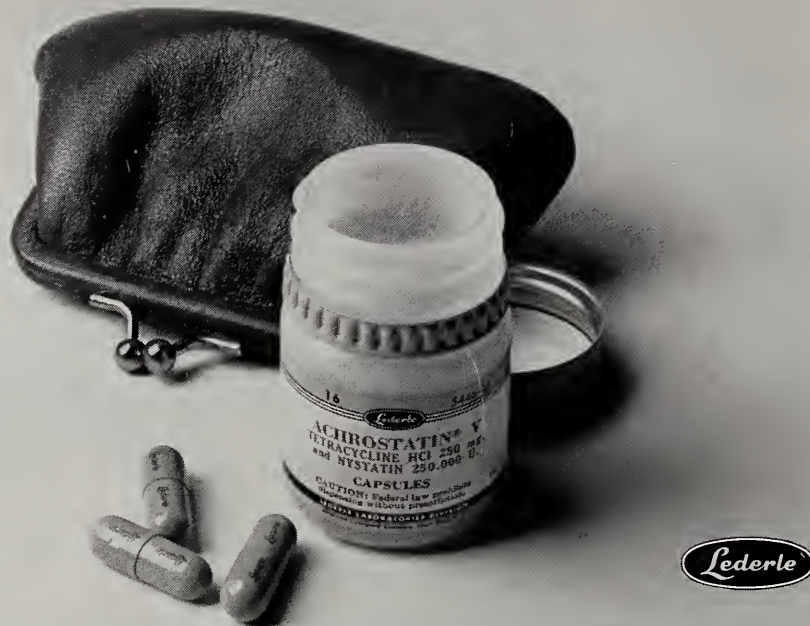
Mr. Myers is the author of two books, "Social Insurance and Allied Government" and "Medicare."

surance" means, since nowadays many people are using it with quite different meanings. In my opinion, national health insurance means a program under which the entire population of the country, or virtually the entire population, would be provided all their medical care needs either directly by the Government through salaried physicians and other staff and through government-owned hospitals (socialized medicine), or else through private providers of service most of whose remuneration would come from government insurance programs (the Medicare or social insurance approach).

Other types of proposals are currently being made that are called national health insurance plans, but, in my opinion, they should be categorized differently. Some proposals would completely change—or it might be said, scrap—present methods of providing medical care. It would seem to many people that these would be catastrophic in effect if put into operation in the near future, and I think that many of the advocates realize this but are merely using the proposals for talking purposes. Other proposals would instead be harmonious with the present medical-care system, which, despite strident charges from some quarters, has not been remaining static but rather, in the desirable pattern of American democracy, has been gradually and steadily developing better and more efficient procedures as experience has indicated feasible.

The social insurance approach is taken in bills introduced by Senator Javits and Congresswoman Griffiths. Both bills are truly national health insurance, since they would apply to virtually the entire population and would provide virtually complete medical care, with the financing being through payroll taxes on workers and employers, plus a substantial matching government subsidy.

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The latter, of course, merely tends to hide some of the huge costs involved, since who else but workers and employers will provide the money for the general-revenues financing?

Within a few years, after the full range of comprehensive benefits are provided, the cost of these plans will be at least ten percent of payroll, regardless of how it is divided up, and could well be as high as 15 percent. Actually, no precise cost estimates are possible—as they can be made for a cash-benefits program—because there are so many intangibles involved. For instance, there could be no certainty in the cost estimating process as to how the remuneration of physicians will be determined once there is a monopolistic, monolithic health insurance program. Nor is there any way to know how much services will be provided in such areas as hospitalization and drugs once the financial restrictions on patients have been largely removed.

At the one extreme, a national health insurance system can have a low cost by fiat of the Government if it merely allots a certain amount of money for health services and provides only what results therefrom—which has been very much the case under the British National Health Service. On the other hand, the financial sky would be the limit if a national health insurance plan provides all the services that people demand as readily and quickly available as possibly can be, without regard to whether this is medically necessary or desirable.

A quite different approach has been taken by Governor Rockefeller. He advocates, in essence, that employers must have insurance or other programs covering certain basic health needs of their employees and their families, with a separate governmentally-financed program of similar nature for non-employed persons. In many ways, this would change the existing system very little, since the vast majority of employees in the country already have reasonably adequate private health insurance.

Another type of proposal is to grant tax credits for those who purchase, on a voluntary basis, comprehensive health insurance coverage from private insurers. The amount of the tax credit would be inversely related

to family income, so that the very low income groups would receive their insurance policies without cost to them. Then, there would be a gradual tapering off for higher incomes, until, after a certain point, there would be no government subsidy involved. Such proposals would, of course, be financed from general revenues and would therefore mean higher taxes from one source or another for the general taxpayer. Proposals along these lines have been made by the AMA and by Congressman Fulton and Senator Fannin.

A quite different approach has been suggested by Congressman Durward Hall. One part of his proposal would be to provide private health insurance policies for the medically indigent and thus would replace the Medicaid program. The second part of his proposal would cover truly catastrophic illness for the entire population, defining “catastrophic” in relation to the family’s income. Through the latter procedure, families would obtain the very necessary economic protection in those rare instances where medical costs run far in excess of the maximum limits in most health insurance policies. The cost for this “catastrophic expense” plan would be met from general revenues, which seems a most desirable approach because of the relatively few cases involved—so that establishing any insurance system involving premium payments would be administratively inefficient.

One might well wonder why there is currently such a clamor for national health insurance or similar programs at this moment. Medical science has been making giant steps of progress, and the health and longevity of the American public is at an all-time high. Many different types of programs are being developed and put into effect to provide adequate health care for the very small minority of our population who are truly in poverty. And yet the advocates of socialized medicine are raising their voices even louder to denigrate the existing medical situation. In turn, this causes more moderate groups to examine the situation and to come up with alternative proposals of their own. Undoubtedly, this debate in our democratic society has certain advantages, but it does seem some-

what strange that it is now occurring.

I think that there is a rather simple explanation of this occurrence—namely, the general inflation that we have been having for the last five years. As you well know, the price level has been rising at an annual rate of about five percent, while at the same time the general level of earnings has been rising about seven percent to eight percent per year. At the same time, physician fees have also been rising at about seven percent to eight percent per year, while hospital costs have been increasing about 15 percent annually. The much sharper rise in medical costs than in the general price level has been brought home strongly to the American public. For one thing, there is the natural tendency that people object most strongly to rising prices for things that do not give them immediate personal pleasure—and most medical costs hardly fall in that category, even though over the long run they are primary in achieving personal enjoyment and satisfaction of living.

The advocates of socialized medicine have seized this particular opportunity to achieve their goals or advance toward them, since they believe that the public can be aroused by the sizable increases in medical-care costs. These advocates made a strong drive for national health insurance—preferably of the socialized medicine type—in the 1940's, but they failed to achieve their goal because of the general growth of private health insurance then (which they said would never achieve the success it actually has).

After laying low for two decades, during which they sought to get the camel's nose in the tent through the enactment of Medicare, these advocates of socialized medicine are again out in the open in full force, using as their appealing argument the recent large increases in medical-care costs. As propagandists, they are quite willing to ignore and leave unmentioned several significant and crucial facts.

First, the largest increases in medical care costs have been for hospitalization—an area that is considered sacrosanct, because 95 percent of the short-stay hospital beds are in "non-profit" institutions. Second, the *relative* trend of physician fees in the past

five years has been almost exactly the same as it was in the preceding two decades—namely, increasing at about the same rate as the general earnings level.

Third, the illusion is fostered that, somehow or other, insurance is magic and has the inevitable effect of reducing costs. Actually, insurance does not reduce costs in the aggregate, but rather merely, although desirably, it spreads the costs among the insured group. Thus, none have extremely high costs, while others have little or no cost at all, but rather all persons have a uniform low or moderate cost (i.e. the premium rate).

In summary, on this point, it seems to me that the advocates of socialized medicine are trying to deceive the general public and sell them their old line of goods under a new guise—sharply rising medical costs which are unfairly blamed on physicians, when instead they are much more due to the rising general price and wage level and to the trend of hospital costs.

Now, let me turn to a subject on which I believe that I have considerably more expertise—namely, the financial status of the Medicare program, about which there has been much public misunderstanding. As you know, the Hospital Insurance program is financed predominantly by payroll taxes paid by and with respect to employed persons, whereas the Supplementary Medical Insurance program is financed by premiums from the enrollees and matching government payments.

The cost-estimating problems have been much greater for the HI program than for SMI. Under HI, the attempt is made to provide adequate financing over a 25-year period by establishing a proper schedule of contribution rates. On the other hand, under SMI, the premium rate is determined for only a short advance period, now annually.

The cost of the HI program over the next 25 years as now estimated is somewhat more than twice as high as the original estimate made in 1965, when the legislation was enacted. To say the least, this is a very professionally embarrassing situation. My actuarial colleagues in the private insurance sector in 1965 believed that my estimates

were too low, but even their higher estimates are now only about half of what the cost apparently will be over the next 25 years.

What are the reasons that this very significant discrepancy occurred? The primary reason is the rapid and completely unexpected escalation of hospitalization costs that occurred in the past and that is quite likely to continue for at least a few more years in the future. Before 1965, hospitalization costs had been increasing about seven percent annually, and there seemed some indication that this rate would soon taper off. Instead, with the war in Viet Nam and the accompanying economic effects and, to some extent, with the introduction of the Medicare and Medicaid programs, hospitalization costs since 1965 have jumped by 15 percent annually. To the best of my knowledge, nobody in 1965 made any prediction that this could possibly happen.

The other factor—and a much less significant one—is the extent of hospital utilization. I had initially estimated utilization of about 3.2 days per person per year. And my insurance colleagues had estimated somewhat higher. But both of us were well below the current experience of about 4.0 days per person per year. My current cost estimates not only use this figure as a starting point, but they also allow for a small increase in hospital utilization each year for about the next decade.

Now turning to the SMI program, my actuarial cost estimates have been much closer to the mark. Once again, this is a point of evidence that contradicts the claim that physicians are largely, or even entirely, responsible for the costs of the Medicare program being much higher than anticipated! Specifically, the SMI premium rate is, by law, supposed to be determined so as to finance adequately the benefits and administrative expenses on an accrual basis. By the latter term is meant that the costs incurred in a certain period, even though payment therefor is made subsequently in some cases, is to be matched up against the income from premiums and government contributions for that period.

As the actual experience developed, the

initial premium rate of \$3.00 was too low, but only by about seven percent. Although technically speaking, it might be said that this made the program financially insolvent, nonetheless it could continue to operate on a cash basis because of the inherent lag between the time when medical services are rendered and when the program makes payments therefor.

The premium rate was then changed to \$4.00, in part because some new benefits were provided, in part to recognize that the initial rate had been too low, and in part to make allowance for likely future increases in physician fees and other costs covered by the program and in utilization of services by the enrollees. Once again, after the experience had developed and had been analyzed, it was found that the premium rate had been promulgated at too low a level—again by about seven percent. Part of this small discrepancy was due to an influenza epidemic and part was due to somewhat higher increases in fees than had been estimated. Still, the system was able to function on a cash basis for the reasons indicated previously, and there was a trust fund balance of several hundred million dollars.

Then, it became necessary in December 1968 to promulgate yet another premium rate, this time for the year beginning July 1969. Secretary Wilbur J. Cohen, who was to go out of office in a few weeks as a result of the election of President Nixon, had the legal authority to promulgate the premium rate at any amount which he determined, but the Congressional intent was that such rate should be based on actuarial analysis and computations. Nonetheless, Secretary Cohen ignored the actuarial recommendation of a rate of at least \$4.40 and instead continued it at \$4.00.

He took this action on the grounds that he would, in essence, freeze physician fees (but not other costs under the program) at the existing level—even though he would not be around to see that this was done! Moreover, he had the temerity to say that he was taking this action to help President Nixon, since this would mean less cost to the General Treasury for the matching contributions! Of course, what he did not say was that his action would virtually bank-

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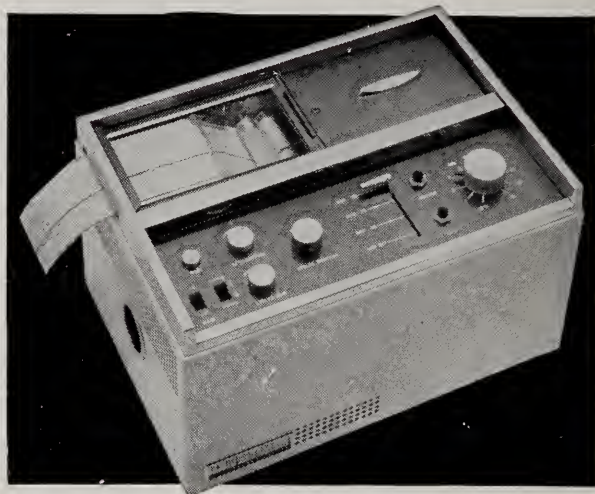
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rupt the SMI Trust Fund—as it has actually done—and would therefore cause his successor greater embarrassment by forcing him to promulgate a much higher premium rate the next time.

And all this has actually occurred. The balance in the SMI Trust Fund at the end of next month will probably be only about \$50 million, or the equivalent of only about one week's outgo. Secretary Finch found it necessary last December to promulgate the new premium rate, beginning in July, at \$5.30 per month, and he forthrightly followed the actuarial recommendation despite the widespread political criticism it evoked.

Now let me turn briefly to the matter of the freezing of physician fees in the past. Let us also consider current proposals for the future, as the Nixon Administration has recommended and as the House Ways and Means Committee has adopted in a bill that it has recently reported out.

I do not claim to have the answer as to whether physician remuneration is too high or too low, but I am convinced that the recent *trend* in physician fees is entirely justifiable in relation to other prices and to salary levels in general. The justifications made by former Secretary Cohen for freezing physician fees for Medicare purposes do not seem to me to be in accordance with the intent of the law.

When Medicare was enacted, the principle was that reimbursement would be made on a reasonable-charges basis, as determined by the physicians' customary charges to all his patients and by the prevailing level of physician charges in the locality. With respect to the latter element, I believe that there was the misconception that, in a given area, the vast majority of the physicians had about the same general charge structure and that only a few "society" physicians had much higher fees. Assuming this to be the case—and I believe that, in actual practice, it is really not so—then the intent of considering prevailing charges was to reduce only the few instances of much-higher-than-average charges. In fact, the underlying intent of the legislation in this respect was that the SMI program should consider physician charges in the same manner as was, and still is done by the large group

insurance companies, who take a very flexible view of the situation and only reduce charges for reimbursement purposes when there are obviously excessive charges or fraudulent ones.

Instead, the administrative operation of the SMI program was established on a quite different basis, with painstaking and costly procedures devised so as to examine closely all charges. In my opinion, this advance planning was done solely for the eventual control of physician fees on a very stringent and different basis than was originally envisioned in the law. Some of this rigid control has already come to light, and some people would like to have much more of it in the future. And the apparatus has been constructed to do exactly this! Underlying all of this is a belief on the part of many of my colleagues that physicians now (and in the past as well) have exorbitantly large incomes and that their incomes should be reduced—or at least held down in the future as prices and other salaries rise. Some of these colleagues are civil-service employees, but incredibly, a few are political appointees of the Johnson Administration who have not been replaced by the Nixon Administration, despite their strong philosophical views favoring the former.

Some very stringent procedures, as well as the supporting "logic," were developed to justify the freeze of physician fees that former Secretary Cohen imposed and that Secretary Finch has been virtually compelled to continue. Actually, I am not certain that this freeze had any real effect. Like many other economic controls, it may have pushed in the inflationary balloon at one point, only to have it push out in a counteracting manner in another place (such as more utilization or such as charging for some items previously furnished without charge).

One might reasonably think that the term "customary charge" means what the physician is currently charging his patients, just as though he had a sign listing his fees posted in his office. Instead, the peculiar interpretation has been evolved which says, in essence, that a fee is not customary until it has been in effect for about six months, and then "custom" cannot change for another

year. No such illogical limits prevail in other economic areas—as, for example, utilities being granted an increase in their rates on a certain date because they are economically justified, but then not being allowed to put them into effect for 18 months because of a “customary” provision. In the same way, such artificiality has been introduced in the “prevailing charges” concept, so that there too an 18-month lag is present.

A proposal has currently been made by Secretary Finch that, in the future, the prevailing-charge limits on whatever are determined to be the customary charges of a particular physician shall be the present allowable prevailing charges increased by an index made up partially of changes in the general level of physician fees and partially of the changes in the general cost level of living. Since the latter usually rises at a lower rate than the former, this would mean that, over the course of time, the prevailing-charges limit would gradually apply completely to each physician, rather than his customary charges. So, there would eventually be a flat fee schedule under SMI for all physicians in a particular locality, determined by the Government. This is quite different from the original approach in the Medicare legislation of paying reasonable charges of physicians!

The physicians of this country have been neatly trapped by the social planners, who secretly envy their high incomes, whether real or only apparent, and thus criticize them on any possible grounds. The intent of the Medicare program was that persons aged 65 and over should pay the same physician fees as younger persons, and thus should not be second-class citizens by being given lower, “charity” rates. Now that the physicians have charged in this manner, they are severely criticized! If they had artificially held down their fees for Medicare patients, then they would have been subject to the danger that the social planners would have pointed out that Medicare was operating very well and at a low cost and that therefore it should be extended to the entire population. You can’t win!

The only possible solution to this apparent dilemma would be the development of a

feeling of mutual trust and confidence between the Government and the medical profession. This certainly does not exist now—and for good cause. It was quite understandable why this situation did not prevail under the Johnson Administration. It seems almost inexplicable that there has been no change in the current Administration. Perhaps the reason for this is the fact that a number of high-ranking political appointees of the Johnson Administration in the Social Security Administration and in the Public Health Service who develop policy, even though perhaps not finalizing it, have not yet been replaced.

I cannot conclude without saying a few words about the cash-benefits program, Old-Age, Survivors, and Disability Insurance. I deeply believe that this is a very necessary and desirable program and that it is now, and has always been, soundly financed. I believe, as you may know from some of my writings, that there are grave potential dangers ahead because the political liberals, or expansionists, when they get in office again will make strenuous efforts to change the program so that it will no longer be a floor of protection.

Instead, these proponents wish to see the Government provide virtually complete financial security to non-working members of our society through governmental means. In the process, they would destroy almost completely all individual efforts through private savings, private insurance, and private pension plans. I believe that this would have catastrophic effects on people as individuals and, further, that it would have the side effect of greatly weakening or destroying our private enterprise system because of drying up much private investment capital.

The thing to beware of is the introduction of government subsidies into our social insurance systems that are now supported entirely by payroll taxes. Such subsidies give the appearance of being a painless way to expand greatly the benefits of the program, since nobody *appears* to have his pocketbook tapped therefor, whereas increases in payroll taxes are easily discernible and, accordingly, subject to taxpayer resistance.

Myers Resigns As SSA Actuary

The author of the preceding article submitted his letter of resignation on April 15th and it was accepted on May 25th. Following is the resignation letter:

Honorable Robert H. Finch
Secretary
Department of Health,
Education, and Welfare
Washington, D. C. 20201

Dear Mr. Secretary:

It is with the utmost regret that I am constrained to submit my resignation as Chief Actuary of the Social Security Administration.

I am deeply concerned about the welfare of the Nation, and I wish to serve the Nixon Administration and the Congress to the best of my ability. I believe that I can best serve these causes by remaining in my present position until the president signs the Social Security bill which will result from the pending Congressional deliberations. Therefore, I have not set a definite date for my resignation. If you believe that my continued presence is not in the best interests of the Department, I will be glad to make my resignation effective at any earlier date. I would appreciate your informing me as to your views on this matter.

I wish to make it clear that my resignation is by no means related to my views on the pending Social Security legislation. In fact, the situation is quite the opposite. I strongly believe that the President's proposal is an excellent one, including its sound financing. It is certainly the most progressive, forward step taken in the Social Security field in many years.

I believe that the President's proposal very well conforms with, and implements, the moderate philosophy of Social Security. It is a progressive, forward step that would prevent future over-expansion of the program, which would destroy private efforts in the economic security field and thus lead to serious consequences insofar as our national economy is concerned.

I should also add that now—as at all previous times during my 35 years of actuarial service with the Social Security program—no one has made any attempt whatsoever to influence or sway the technical actuarial cost estimates for the existing program or any proposed changes therein.

The question might well be raised as to why I believe, in all conscience and integrity, that I must resign. I have previously talked with you about my strong personal beliefs and have given

you much supporting factual evidence to substantiate my views—namely, that certain of the top-policy-making officials of the Social Security Administration (who are holdovers from the Johnson Administration) have strong beliefs in the desirability—even the necessity—of the public sector taking over virtually all economic security provisions for the entire population and thus eliminating private efforts in this area. It seems to me that this viewpoint is completely alien to that of the Nixon Administration.

Further, and equally important, it is my deeply-held conviction, as I have expressed to you a number of times in the past, that these officials of the Social Security Administration have not—and will not—faithfully and vigorously serve the Nixon Administration. Rather, they will exert their efforts to expand the Social Security program as much as possible by aiding and supporting any individuals and organizations that are of this expansionist conviction. Such anachronistic actions took place extensively during the Eisenhower Administration—against its political views. Such working at cross purposes with the Nixon Administration has occurred in the past year, and is still occurring, although to a somewhat limited extent so far. I have brought to your attention, on several occasions, the fact that the Social Security Administration is excessively wasteful by spending far too much time and money in performing research, conducting program planning, and collecting statistics in a manner that is not only nonproductive of sufficient worthwhile results, but also inimical to what I understand to be the philosophy and goals of the Nixon Administration.

Undoubtedly, there will be those who will say that I am taking this action solely or largely because I seek enhanced personal recognition. This is not the case. There is no position of any type that I would rather serve in than my present one, and I am not happy to have to leave it.

Evidently, no credence is placed in what I have related to you personally or in other evidence that I have furnished you on this matter, which has such an important effect on the future of the Social Security program. Therefore, I must, in good conscience and personal integrity, resign. It is especially dismaying to me to have to take this action, because I had hoped to serve the Nixon Administration not only with competence and integrity—as I had tried to serve all previous Administrations—but also with great enthusiasm, since I strongly believe in its philosophy and goals.

Sincerely yours,
ROBERT J. MYERS, F.S.A.
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cc: The Under Secretary

(From the Oklahoma State Medical Journal, June 1970.)

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When irritable colon feels like this



The blowfish, a small species of fish, reacts to stress or fright by puffing itself up with air. After about a dozen noisy gulps the belly is ball-shaped and hard. When replaced in the water the air is quickly expelled, and the fish sinks to the bottom.



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